



|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|

|  |
| --- |
| Most recent open collection and call for papers [Explore all](https://links.springernature.com/f/a/HBv_bhG2bdMoAd7QxtzSTA~~/AABE5hA~/lGB_uu0H_n4FFHd8VRHrJcPzJaZtoisp4uLrpLCEoH9jEPJuHFWeazrHY4VqvXkywPf2yaVveUlck4UKUcRmPNRk_x4uBa5S1pm0YDLWKJURz6VCJ1HDRGDkH1JhLgPT3C87I6FjqgoGtuEuxH137nqP1GWjWYyVcZrrV4yxmZ5BaKzNC3dH6XjldQxZzKFRZVUiGYCmYw1VE7EZrNMIf0JdJuDsp7KXyoSwwMFb-7NxnblAjudxiRqfe6qrjNAtogQUuWeF2x5M7HlqUy6CirJwAqsqlwJwIcNhCXFIVQBtP0cqbmHIllYwspltJFf__CGmayzMH3K-9JLDbYgcbkxX3I34Zs_KlinSP4IXhTlWsM6R2WP8353-AIFdt3UB) |
|

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|

|  |  |  |  |
| --- | --- | --- | --- |
|

|  |  |  |
| --- | --- | --- |
|

|  |  |
| --- | --- |
|

|  |
| --- |
|    |

 |

 |

 |

 |

 |
| [Intelligent Welding Manufacturing – Generative AI Empowering Advancements](https://links.springernature.com/f/a/hHFj6U3V3HS7VcTsGi5LUw~~/AABE5hA~/EsayQRL0c6EBndFVYsOSMHzrTmud0X5L5-xBkoioluArwsmHhMOcVSNZqAAUqzMDfGnEpg_X1ja5JBXyqMoZPPixmGU0ccRzLJAo1yQnZ1R_8GHz9U3I1LeMgrCzleiPHjSjNsEEWnzVtbNMm6BI2qKKrpaEhwbZ9B2_r9UYAA1MCIqOhjtPVJlg_zdSIceOqJKCuQzF7pWrnIMSHsQOUfLdySP9He7mRB0B9xvY0Ne3o89MM7dxNb-lriLJ1rtj7RPliZ1enR-OoKY135-Fzmo0yz9J8MGQ7RrExss5UPcx2FUqIq00mIzuCncE_SNXhvzra7KxkB4GED68rgEvSrDjpV0f44APrSfD-Mj-bdY~) |
| Editors: Majid Farajian |

 |

 |

 |

 |

 |
|

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|

|  |  |  |  |
| --- | --- | --- | --- |
|

|  |
| --- |
| **In this issue** |
|

|  |
| --- |
|    |

 |

 |

 |

 |

 |

 |
|

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|

|  |  |
| --- | --- |
|

|  |
| --- |
| Research Paper |

 |

 |

|  |  |
| --- | --- |
|

|  |
| --- |
| Open Access |

 |

 |

 |

 |

 |
|

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|

|  |  |  |  |
| --- | --- | --- | --- |
|

|  |  |  |
| --- | --- | --- |
|

|  |
| --- |
| [The effect of filament peaking on electron beam weld quality](https://links.springernature.com/f/a/8sAul_nl3NfzWIOudO5Nwg~~/AABE5hA~/CQZ5fBr3-7fgyv8RjxCKgCEfiutL6F6WiRqmaY30dGj5lGAk2AxR-AMaqVuRE9OiLIgd2GL5m1vPrdLxzQ3pZSyn6RqSdyg2hSwa7lQay2Hu1BSEFRX-_R4NA7KZFHcERuCrlROe0_8bci8-vP2xIwwSMoCMs3KorzXpQb84MFLRquvxMHBKPrz9NHJZBv1E3AEMBA78pfCw0ETGe_IAawUHW-80Hmdj0vKMRemjQGbt7c6vkjff663I3QUVShynwPnGxtC1AGwmpYla8bKaPPoKANcEzNlUS7KYFQ9fI7obrl0hIJ_SdlKeAAo0haV5rabgV5B5FB-7dw52hOSyMw~~) |
| John W. Elmer, Gordon Gibbs |

 |

 |

 |

 |

 |
|

|  |  |  |  |
| --- | --- | --- | --- |
|

|  |  |  |
| --- | --- | --- |
|

|  |  |
| --- | --- |
|

|  |
| --- |
| [**» Abstract**](https://links.springernature.com/f/a/8sAul_nl3NfzWIOudO5Nwg~~/AABE5hA~/CQZ5fBr3-7fgyv8RjxCKgCEfiutL6F6WiRqmaY30dGj5lGAk2AxR-AMaqVuRE9OiLIgd2GL5m1vPrdLxzQ3pZSyn6RqSdyg2hSwa7lQay2Hu1BSEFRX-_R4NA7KZFHcERuCrlROe0_8bci8-vP2xIwwSMoCMs3KorzXpQb84MFLRquvxMHBKPrz9NHJZBv1E3AEMBA78pfCw0ETGe_IAawUHW-80Hmdj0vKMRemjQGbt7c6vkjff663I3QUVShynwPnGxtC1AGwmpYla8bKaPPoKANcEzNlUS7KYFQ9fI7obrl0hIJ_SdlKeAAo0haV5rabgV5B5FB-7dw52hOSyMw~~)    [**» Full text HTML**](https://links.springernature.com/f/a/8sAul_nl3NfzWIOudO5Nwg~~/AABE5hA~/CQZ5fBr3-7fgyv8RjxCKgCEfiutL6F6WiRqmaY30dGj5lGAk2AxR-AMaqVuRE9OiLIgd2GL5m1vPrdLxzQ3pZSyn6RqSdyg2hSwa7lQay2Hu1BSEFRX-_R4NA7KZFHcERuCrlROe0_8bci8-vP2xIwwSMoCMs3KorzXpQb84MFLRquvxMHBKPrz9NHJZBv1E3AEMBA78pfCw0ETGe_IAawUHW-80Hmdj0vKMRemjQGbt7c6vkjff663I3QUVShynwPnGxtC1AGwmpYla8bKaPPoKANcEzNlUS7KYFQ9fI7obrl0hIJ_SdlKeAAo0haV5rabgV5B5FB-7dw52hOSyMw~~) [**» Full text PDF**](https://links.springernature.com/f/a/sx-RZUVKt9QvpFKPYrIWLA~~/AABE5hA~/XO-aPidHlrSVSxpZ02GlocGehoSc3kOGjlTVyKV1cE1cYZCUkUvFxm2JvzNuL_s2B_sHnPa0x_2U83WdVGSUQ28TlMBMX4lFqEU5brCx-WxHRul239ilN1ZAa_0Sw6x5rNe8My9kmwDCVTyEnCJ_CXGYQoxIH1h25dWOHwFSZqnW1feDv0vq50h45QkSYtgSTM_BcyaOTh8DZk_bxGMyF4LbyoUFv6Fquw69Dhg-sJblvH4fJmyxRoO1wMHnsvfE8LS8PsBIlb1ZZv_GGB1r_Y6k9KC18EbR9id6N77JQksujlF-bdaIWHKFgbZlJE91NNa7x8HH7fZ9Gc4qwCobdQ~~) |

 |

 |

 |

 |
|

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|

|  |  |  |  |
| --- | --- | --- | --- |
|

|  |  |  |
| --- | --- | --- |
|

|  |  |
| --- | --- |
|

|  |
| --- |
|    |

 |

 |

 |

 |

 |
|

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|

|  |  |
| --- | --- |
|

|  |
| --- |
| Research Paper |

 |

 |

|  |  |
| --- | --- |
|

|  |
| --- |
|  |

 |

 |

 |

 |

 |
|

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|

|  |  |  |  |
| --- | --- | --- | --- |
|

|  |  |  |
| --- | --- | --- |
|

|  |
| --- |
| [Effect of laser power on microstructure and properties of high-speed laser cladding of S890 steel](https://links.springernature.com/f/a/GzJ65F9ALRzNU4ypgORbZw~~/AABE5hA~/CQZ5fBr3-7fgyv8RjxCKgCEfiutL6F6WiRqmaY30dGj5lGAk2AxR-AMaqVuRE9OiLIgd2GL5m1vPrdLxzQ3pZZygRUpu1_09RXd9Cm5QiA1B0IdptnkB6dcg955ryQfrpJzYL-6-xOk46wSFruj2I9GPvtJCPL32vyWL9vGobYzfNsPJzyRqqD2MOILPjVwcXNPa7moDk1YcKbUXU7i6HVu_ZpanbZzZ-aWoGpp0xeO0W9i1XPIn9eKqFWkHSWLpDO4_8Jz1NiOKA_Ci0NyKtT5BW_IihzagCjPMOgXhMF0q73H4lFnE_Tla11hHGCxB1-_WZZspf9P0EMDLymA9Dg~~) |
| Kanglong Wang, Yunfeng Chang, Xiaoqin Guo, Tongda Wei, Yishuai Fu, Shannan Zhang, Dongliang Wang |

 |

 |

 |

 |

 |
|

|  |  |  |  |
| --- | --- | --- | --- |
|

|  |  |  |
| --- | --- | --- |
|

|  |  |
| --- | --- |
|

|  |
| --- |
| [**» Abstract**](https://links.springernature.com/f/a/GzJ65F9ALRzNU4ypgORbZw~~/AABE5hA~/CQZ5fBr3-7fgyv8RjxCKgCEfiutL6F6WiRqmaY30dGj5lGAk2AxR-AMaqVuRE9OiLIgd2GL5m1vPrdLxzQ3pZZygRUpu1_09RXd9Cm5QiA1B0IdptnkB6dcg955ryQfrpJzYL-6-xOk46wSFruj2I9GPvtJCPL32vyWL9vGobYzfNsPJzyRqqD2MOILPjVwcXNPa7moDk1YcKbUXU7i6HVu_ZpanbZzZ-aWoGpp0xeO0W9i1XPIn9eKqFWkHSWLpDO4_8Jz1NiOKA_Ci0NyKtT5BW_IihzagCjPMOgXhMF0q73H4lFnE_Tla11hHGCxB1-_WZZspf9P0EMDLymA9Dg~~)    [**» Full text HTML**](https://links.springernature.com/f/a/GzJ65F9ALRzNU4ypgORbZw~~/AABE5hA~/CQZ5fBr3-7fgyv8RjxCKgCEfiutL6F6WiRqmaY30dGj5lGAk2AxR-AMaqVuRE9OiLIgd2GL5m1vPrdLxzQ3pZZygRUpu1_09RXd9Cm5QiA1B0IdptnkB6dcg955ryQfrpJzYL-6-xOk46wSFruj2I9GPvtJCPL32vyWL9vGobYzfNsPJzyRqqD2MOILPjVwcXNPa7moDk1YcKbUXU7i6HVu_ZpanbZzZ-aWoGpp0xeO0W9i1XPIn9eKqFWkHSWLpDO4_8Jz1NiOKA_Ci0NyKtT5BW_IihzagCjPMOgXhMF0q73H4lFnE_Tla11hHGCxB1-_WZZspf9P0EMDLymA9Dg~~) [**» Full text PDF**](https://links.springernature.com/f/a/B8lf0g5kl6Ds7HQYPEaaZg~~/AABE5hA~/XO-aPidHlrSVSxpZ02GlocGehoSc3kOGjlTVyKV1cE1cYZCUkUvFxm2JvzNuL_s2B_sHnPa0x_2U83WdVGSUQ28Pj9xV992aVxZQwUchbh8CVrECmfRZ2NeBPrXIYCFSxL2gcplKaxjge8kwKDhsboRKuVoj1nJfrYT-zFwh52UMI5PHpmxfYJyU_U4I8RHqISSfJO2uubAUC7OMFf0GY95Ig5xZciyXnFr1nf78eSTbm-okuaCbeDkGTAN_hgi7xUxnFywvFZtWd9zj83GjsLy0OtgLVGHklpuF0RvBTfOBsUjF3k6VmypBWoq0bYnvbJNyzkFognD2K2REaAG1Eg~~) |

 |

 |

 |

 |
|

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|

|  |  |  |  |
| --- | --- | --- | --- |
|

|  |  |  |
| --- | --- | --- |
|

|  |  |
| --- | --- |
|

|  |
| --- |
|    |

 |

 |

 |

 |

 |
|

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|

|  |  |
| --- | --- |
|

|  |
| --- |
| Research Paper |

 |

 |

|  |  |
| --- | --- |
|

|  |
| --- |
|  |

 |

 |

 |

 |

 |
|

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|

|  |  |  |  |
| --- | --- | --- | --- |
|

|  |  |  |
| --- | --- | --- |
|

|  |
| --- |
| [Optimizing welding angle for enhancing hybrid welding seam quality](https://links.springernature.com/f/a/CVR7j6uWTGvz8ejBb5zohw~~/AABE5hA~/CQZ5fBr3-7fgyv8RjxCKgCEfiutL6F6WiRqmaY30dGj5lGAk2AxR-AMaqVuRE9OiLIgd2GL5m1vPrdLxzQ3pZXstOlRcda5mNTf6Xbe9d5tLvMdpSswzHO5l0DuXSNLVX5mH81xpTZUtlcIwBgh5rP72Eoy3Z-KkVR6S4k6nZRoFO4v95wcYaMQPrK5m7E788Ta5-OFD8LwzKRtV2Rb0lng7LF3i4z_9_ny4I9eAggD54wjAWyH6a1_uGGltQEJZ29DmQtzZAaGM41oTOFSSV5KbxaEjk2csFK2tlD7StWWL0vQwitIJOt1K38pgyVj8DehrSaHrjOkEDuHkXSokUw~~) |
| Lingxiao Song, Peilei Zhang, Zufa Li, Junbo Feng, Xunzuo Su, Jixuan Li, Zhishui Yu |

 |

 |

 |

 |

 |
|

|  |  |  |  |
| --- | --- | --- | --- |
|

|  |  |  |
| --- | --- | --- |
|

|  |  |
| --- | --- |
|

|  |
| --- |
| [**» Abstract**](https://links.springernature.com/f/a/CVR7j6uWTGvz8ejBb5zohw~~/AABE5hA~/CQZ5fBr3-7fgyv8RjxCKgCEfiutL6F6WiRqmaY30dGj5lGAk2AxR-AMaqVuRE9OiLIgd2GL5m1vPrdLxzQ3pZXstOlRcda5mNTf6Xbe9d5tLvMdpSswzHO5l0DuXSNLVX5mH81xpTZUtlcIwBgh5rP72Eoy3Z-KkVR6S4k6nZRoFO4v95wcYaMQPrK5m7E788Ta5-OFD8LwzKRtV2Rb0lng7LF3i4z_9_ny4I9eAggD54wjAWyH6a1_uGGltQEJZ29DmQtzZAaGM41oTOFSSV5KbxaEjk2csFK2tlD7StWWL0vQwitIJOt1K38pgyVj8DehrSaHrjOkEDuHkXSokUw~~)    [**» Full text HTML**](https://links.springernature.com/f/a/CVR7j6uWTGvz8ejBb5zohw~~/AABE5hA~/CQZ5fBr3-7fgyv8RjxCKgCEfiutL6F6WiRqmaY30dGj5lGAk2AxR-AMaqVuRE9OiLIgd2GL5m1vPrdLxzQ3pZXstOlRcda5mNTf6Xbe9d5tLvMdpSswzHO5l0DuXSNLVX5mH81xpTZUtlcIwBgh5rP72Eoy3Z-KkVR6S4k6nZRoFO4v95wcYaMQPrK5m7E788Ta5-OFD8LwzKRtV2Rb0lng7LF3i4z_9_ny4I9eAggD54wjAWyH6a1_uGGltQEJZ29DmQtzZAaGM41oTOFSSV5KbxaEjk2csFK2tlD7StWWL0vQwitIJOt1K38pgyVj8DehrSaHrjOkEDuHkXSokUw~~) [**» Full text PDF**](https://links.springernature.com/f/a/yNC5Fg2iLQBwWMlCV11I2A~~/AABE5hA~/XO-aPidHlrSVSxpZ02GlocGehoSc3kOGjlTVyKV1cE1cYZCUkUvFxm2JvzNuL_s2B_sHnPa0x_2U83WdVGSUQ-HzeIYvukv3QhK2WDL_bdIEBIVeEDaN7benr_LyuyOB-5Y8PlmK32U0aC70I4woMpMl7Ywh2pNfPTyM15ruecPPQex5G4oMn5mC3JYkOyYa8TGdDuaKve6HFAEvPnv8YWY-NnRJVYlOc-OIJn1E4a_ScXCb2jl8IF9pNuY3LFOXHtJSV7TG7AJMre4_oelbhApTI20bTlQJdvViVuv4x46FuZ7ttfome_OQqnZUHQwuw5BabJgUVBnI6yN3k1NWHA~~) |

 |

 |

 |

 |
|

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|

|  |  |  |  |
| --- | --- | --- | --- |
|

|  |  |  |
| --- | --- | --- |
|

|  |  |
| --- | --- |
|

|  |
| --- |
|    |

 |

 |

 |

 |

 |
|

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|

|  |  |
| --- | --- |
|

|  |
| --- |
| Research Paper |

 |

 |

|  |  |
| --- | --- |
|

|  |
| --- |
|  |

 |

 |

 |

 |

 |
|

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|

|  |  |  |  |
| --- | --- | --- | --- |
|

|  |  |  |
| --- | --- | --- |
|

|  |
| --- |
| [Numerical study on the effect of constraint duration on stress and deformation in SUS301L stainless-steel plates during laser welding](https://links.springernature.com/f/a/nNeSuSlMZYzN8hn0pLzDbA~~/AABE5hA~/CQZ5fBr3-7fgyv8RjxCKgCEfiutL6F6WiRqmaY30dGj5lGAk2AxR-AMaqVuRE9OiLIgd2GL5m1vPrdLxzQ3pZQbyHFQKPxrIp2NiJYQfKNSRe6cKi0Ac5weVzbaMGwFe-Noz58W727I_UdtRrc9Q1dulLxJWQvshjWcFGdIDJGHmMNa67X2OyDlvjrSFBrnPnOubL2vdFE4beJ47-kiZz1gvKPpTgkLOAo02dWTOAagFVN_jar9Pe9tJhsEHrvuaqXM1BR3a2p0lELP-rV5EKspHDGVMvL71Kyoj6wix0tzdvYiYqwTaTrwYwdgfmYD2GpHgAL_v7wf6TWKUF2EnMA~~) |
| Liu Zuguo, Qin Xinmao, Liao Jianhua, Wu Jiazhu |

 |

 |

 |

 |

 |
|

|  |  |  |  |
| --- | --- | --- | --- |
|

|  |  |  |
| --- | --- | --- |
|

|  |  |
| --- | --- |
|

|  |
| --- |
| [**» Abstract**](https://links.springernature.com/f/a/nNeSuSlMZYzN8hn0pLzDbA~~/AABE5hA~/CQZ5fBr3-7fgyv8RjxCKgCEfiutL6F6WiRqmaY30dGj5lGAk2AxR-AMaqVuRE9OiLIgd2GL5m1vPrdLxzQ3pZQbyHFQKPxrIp2NiJYQfKNSRe6cKi0Ac5weVzbaMGwFe-Noz58W727I_UdtRrc9Q1dulLxJWQvshjWcFGdIDJGHmMNa67X2OyDlvjrSFBrnPnOubL2vdFE4beJ47-kiZz1gvKPpTgkLOAo02dWTOAagFVN_jar9Pe9tJhsEHrvuaqXM1BR3a2p0lELP-rV5EKspHDGVMvL71Kyoj6wix0tzdvYiYqwTaTrwYwdgfmYD2GpHgAL_v7wf6TWKUF2EnMA~~)    [**» Full text HTML**](https://links.springernature.com/f/a/nNeSuSlMZYzN8hn0pLzDbA~~/AABE5hA~/CQZ5fBr3-7fgyv8RjxCKgCEfiutL6F6WiRqmaY30dGj5lGAk2AxR-AMaqVuRE9OiLIgd2GL5m1vPrdLxzQ3pZQbyHFQKPxrIp2NiJYQfKNSRe6cKi0Ac5weVzbaMGwFe-Noz58W727I_UdtRrc9Q1dulLxJWQvshjWcFGdIDJGHmMNa67X2OyDlvjrSFBrnPnOubL2vdFE4beJ47-kiZz1gvKPpTgkLOAo02dWTOAagFVN_jar9Pe9tJhsEHrvuaqXM1BR3a2p0lELP-rV5EKspHDGVMvL71Kyoj6wix0tzdvYiYqwTaTrwYwdgfmYD2GpHgAL_v7wf6TWKUF2EnMA~~) [**» Full text PDF**](https://links.springernature.com/f/a/pwSKU6IZbI1nWFwyVYrbZQ~~/AABE5hA~/XO-aPidHlrSVSxpZ02GlocGehoSc3kOGjlTVyKV1cE1cYZCUkUvFxm2JvzNuL_s2B_sHnPa0x_2U83WdVGSUQ52YBc4GtdEN9zBKirs5C2Qtkyi7WDKNqVikEz0blJWQSD0NszwdpQM9u7_ppSLx5SLjdrQd1J_HNPZaBeLcUus-my_nmoautuI8dHrgfp6NAkwe8iYzqiOVKlmz0QvHGxql2nWDmOGn1i9TKhyLb025-6-sBuPjB6jvHXqpXGWyvY4JbVhfE8pADBoXTiVYMOqCyRWDxpZ0iJ6i8HSmXLKtsasQUQVUd-ixi_xNo9NZ7SwY0Ql3tpyFrR3qdSN3dw~~) |

 |

 |

 |

 |
|

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|

|  |  |  |  |
| --- | --- | --- | --- |
|

|  |  |  |
| --- | --- | --- |
|

|  |  |
| --- | --- |
|

|  |
| --- |
|    |

 |

 |

 |

 |

 |
|

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|

|  |  |
| --- | --- |
|

|  |
| --- |
| Research Paper |

 |

 |

|  |  |
| --- | --- |
|

|  |
| --- |
|  |

 |

 |

 |

 |

 |
|

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|

|  |  |  |  |
| --- | --- | --- | --- |
|

|  |  |  |
| --- | --- | --- |
|

|  |
| --- |
| [Influence of overlap laser welding parameters on the mechanical and microstructural properties of AISI 1018 and 301LN stainless steel joints](https://links.springernature.com/f/a/yn68hrxSZFOP5k3k6Dr9CA~~/AABE5hA~/CQZ5fBr3-7fgyv8RjxCKgCEfiutL6F6WiRqmaY30dGj5lGAk2AxR-AMaqVuRE9OiLIgd2GL5m1vPrdLxzQ3pZdHEYoH_-7BjCGX11pN2kg-BbB8RlEJzllOJStRaRKcfvpCuBqEooMF6dn6dQ17eJNIS0bjBI6QGSkwGtO23qkeM1NVWr3V8E0xpf9Nhq-B4naT55A4zX1pCAnmuF6sen329_OEYdROVD7nk3on4z1L7ikbSsTIblWxfahiBDg5D0SMHggcJpHps9g4BEnoggFSZQrSwUNIj7WXHJcyOr1kcAEpqtuuqoLjVeHAvHj0iDC7SlswwfFnHc4-scqPtmg~~) |
| Payam Farhadipour, Narges Omidi, Pedram Farhadipour, Noureddine Barka, Claude Belzile, Abderrazak El Ouafi |

 |

 |

 |

 |

 |
|

|  |  |  |  |
| --- | --- | --- | --- |
|

|  |  |  |
| --- | --- | --- |
|

|  |  |
| --- | --- |
|

|  |
| --- |
| [**» Abstract**](https://links.springernature.com/f/a/yn68hrxSZFOP5k3k6Dr9CA~~/AABE5hA~/CQZ5fBr3-7fgyv8RjxCKgCEfiutL6F6WiRqmaY30dGj5lGAk2AxR-AMaqVuRE9OiLIgd2GL5m1vPrdLxzQ3pZdHEYoH_-7BjCGX11pN2kg-BbB8RlEJzllOJStRaRKcfvpCuBqEooMF6dn6dQ17eJNIS0bjBI6QGSkwGtO23qkeM1NVWr3V8E0xpf9Nhq-B4naT55A4zX1pCAnmuF6sen329_OEYdROVD7nk3on4z1L7ikbSsTIblWxfahiBDg5D0SMHggcJpHps9g4BEnoggFSZQrSwUNIj7WXHJcyOr1kcAEpqtuuqoLjVeHAvHj0iDC7SlswwfFnHc4-scqPtmg~~)    [**» Full text HTML**](https://links.springernature.com/f/a/yn68hrxSZFOP5k3k6Dr9CA~~/AABE5hA~/CQZ5fBr3-7fgyv8RjxCKgCEfiutL6F6WiRqmaY30dGj5lGAk2AxR-AMaqVuRE9OiLIgd2GL5m1vPrdLxzQ3pZdHEYoH_-7BjCGX11pN2kg-BbB8RlEJzllOJStRaRKcfvpCuBqEooMF6dn6dQ17eJNIS0bjBI6QGSkwGtO23qkeM1NVWr3V8E0xpf9Nhq-B4naT55A4zX1pCAnmuF6sen329_OEYdROVD7nk3on4z1L7ikbSsTIblWxfahiBDg5D0SMHggcJpHps9g4BEnoggFSZQrSwUNIj7WXHJcyOr1kcAEpqtuuqoLjVeHAvHj0iDC7SlswwfFnHc4-scqPtmg~~) [**» Full text PDF**](https://links.springernature.com/f/a/_TQ6kRTrsStAx9GdmFzmhg~~/AABE5hA~/XO-aPidHlrSVSxpZ02GlocGehoSc3kOGjlTVyKV1cE1cYZCUkUvFxm2JvzNuL_s2B_sHnPa0x_2U83WdVGSUQwY87IQmFrfGmY1xWiTIxHuqO58TNLZY_ptP19wtbfKk4IaKsbWZ7nHXSlKZtg0n4yuhAGVEJX325wDkLg0w0Ffw-Lc9G87gxEh2mwunWA4YyKcGFQWvKf6PdPgTb2NQX1aE-Ha4WMPKht2qRHpOYxh4UD-HJfWvx3kF-sLBuxuXr_5JzcW03xNVNyMXxwtOSMuoCA4sPVbUlNWp-ETB_tYOsmA7yWQ7_rGiRYoccBB_ZLwVpYQhfIYM-A_kxtVWMw~~) |

 |

 |

 |

 |
|

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|

|  |  |  |  |
| --- | --- | --- | --- |
|

|  |  |  |
| --- | --- | --- |
|

|  |  |
| --- | --- |
|

|  |
| --- |
|    |

 |

 |

 |

 |

 |
|

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|

|  |  |
| --- | --- |
|

|  |
| --- |
| Research Paper |

 |

 |

|  |  |
| --- | --- |
|

|  |
| --- |
|  |

 |

 |

 |

 |

 |
|

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|

|  |  |  |  |
| --- | --- | --- | --- |
|

|  |  |  |
| --- | --- | --- |
|

|  |
| --- |
| [Arc characteristic of multi-cathode three-electrode GTAW (TE-GTAW)](https://links.springernature.com/f/a/7i3OFcBtZoiBBp5cqjJM3Q~~/AABE5hA~/CQZ5fBr3-7fgyv8RjxCKgCEfiutL6F6WiRqmaY30dGj5lGAk2AxR-AMaqVuRE9Oi5-LgLhQR0HW9Aq1FUZs0WX4IRgK73rcsvys8jm0OyFrNSi00lBS_BVx44fkz67WNnNKNbRt712wlP24UaYYwnnmYoGgNK9Ui26amRFF8EawKqUGWYz7GO_iHPfoBqH_ZMvoSq_u86FT6vZrEctf3pPFIokt-AdgVhqHNItQvgqDGzg0UqDkPYDP4cGhEUGDq5R06QfPuO-VY0MHBk_gVzsAYRcioO99rrJ0VSrJftkwX_vg24tD00fpzO4OBzZZbTx_jYEvKl6RC7bzesP26fQ~~) |
| Mateus Barancelli Schwedersky, Álisson Fernandes da Rosa, Marcos dos Anjos Souza, Régis Henrique Gonçalves e Silva |

 |

 |

 |

 |

 |
|

|  |  |  |  |
| --- | --- | --- | --- |
|

|  |  |  |
| --- | --- | --- |
|

|  |  |
| --- | --- |
|

|  |
| --- |
| [**» Abstract**](https://links.springernature.com/f/a/7i3OFcBtZoiBBp5cqjJM3Q~~/AABE5hA~/CQZ5fBr3-7fgyv8RjxCKgCEfiutL6F6WiRqmaY30dGj5lGAk2AxR-AMaqVuRE9Oi5-LgLhQR0HW9Aq1FUZs0WX4IRgK73rcsvys8jm0OyFrNSi00lBS_BVx44fkz67WNnNKNbRt712wlP24UaYYwnnmYoGgNK9Ui26amRFF8EawKqUGWYz7GO_iHPfoBqH_ZMvoSq_u86FT6vZrEctf3pPFIokt-AdgVhqHNItQvgqDGzg0UqDkPYDP4cGhEUGDq5R06QfPuO-VY0MHBk_gVzsAYRcioO99rrJ0VSrJftkwX_vg24tD00fpzO4OBzZZbTx_jYEvKl6RC7bzesP26fQ~~)    [**» Full text HTML**](https://links.springernature.com/f/a/7i3OFcBtZoiBBp5cqjJM3Q~~/AABE5hA~/CQZ5fBr3-7fgyv8RjxCKgCEfiutL6F6WiRqmaY30dGj5lGAk2AxR-AMaqVuRE9Oi5-LgLhQR0HW9Aq1FUZs0WX4IRgK73rcsvys8jm0OyFrNSi00lBS_BVx44fkz67WNnNKNbRt712wlP24UaYYwnnmYoGgNK9Ui26amRFF8EawKqUGWYz7GO_iHPfoBqH_ZMvoSq_u86FT6vZrEctf3pPFIokt-AdgVhqHNItQvgqDGzg0UqDkPYDP4cGhEUGDq5R06QfPuO-VY0MHBk_gVzsAYRcioO99rrJ0VSrJftkwX_vg24tD00fpzO4OBzZZbTx_jYEvKl6RC7bzesP26fQ~~) [**» Full text PDF**](https://links.springernature.com/f/a/R3xK2B2WpYBUgGHsbO8Srw~~/AABE5hA~/XO-aPidHlrSVSxpZ02GlocGehoSc3kOGjlTVyKV1cE1cYZCUkUvFxm2JvzNuL_s2B_sHnPa0x_2U83WdVGSUQ2XRUVACifdSxenoGpd5vc9dxofMedbSWx8tu5b1E10upv_d2blAgFUqisWmX0JcdpQCTMYzLfX-1RVh9wxnMfHtdwgqkHO5mpHa4zoqlbYfxexv6bSyc0QgaFZ2QatGUvnRK_DW4Y-M3l5TKdH1zCu-CpvvJjBercXMeJ9EeshuRefrz3BCRu5ubBZHhcD6HRJ4CXZOtHlkjs3gzcTIjWR7OWi6u_Pl0dWMUOx9f1dbLFN7FhGsMJYIWqS9IkwJFg~~) |

 |

 |

 |

 |
|

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|

|  |  |  |  |
| --- | --- | --- | --- |
|

|  |  |  |
| --- | --- | --- |
|

|  |  |
| --- | --- |
|

|  |
| --- |
|    |

 |

 |

 |

 |

 |
|

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|

|  |  |
| --- | --- |
|

|  |
| --- |
| Research Paper |

 |

 |

|  |  |
| --- | --- |
|

|  |
| --- |
|  |

 |

 |

 |

 |

 |
|

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|

|  |  |  |  |
| --- | --- | --- | --- |
|

|  |  |  |
| --- | --- | --- |
|

|  |
| --- |
| [Fluid flow measurements in fully penetrated 316L TIG welding](https://links.springernature.com/f/a/TNi4cXc6XIoC4BwTU_XpDw~~/AABE5hA~/CQZ5fBr3-7fgyv8RjxCKgCEfiutL6F6WiRqmaY30dGj5lGAk2AxR-AMaqVuRE9Oi5-LgLhQR0HW9Aq1FUZs0WeHDhneEhGqSX-0g-qJ3wKKkMvDZMPLAAqTrBA4Pax67ebczr2FvVDiQtGImvaQVLwSfkD9aNmVM4o5mS99v5IZxcl4p-lKZHkoO6U5nskvO6efMNqVZg14NsZrEEKaSnwiU83aquZR5OCqCIfT0AAkHJ939jKhU2GMhHsQpdfDfEaJnHgKVnKP9P1ho5HyJnTPh-lAY-qxlXR1sG4Rr1IGErUlllA8DpvgEM4aSmGU_pd1dFU4xLiVtg-o2_WwCWQ~~) |
| Nicolas Blanc, Fabien Soulié, Issam Bendaoud, Sebastien Rouquette, Frédéric Deschaux-Baume, Cyril Bordreuil |

 |

 |

 |

 |

 |
|

|  |  |  |  |
| --- | --- | --- | --- |
|

|  |  |  |
| --- | --- | --- |
|

|  |  |
| --- | --- |
|

|  |
| --- |
| [**» Abstract**](https://links.springernature.com/f/a/TNi4cXc6XIoC4BwTU_XpDw~~/AABE5hA~/CQZ5fBr3-7fgyv8RjxCKgCEfiutL6F6WiRqmaY30dGj5lGAk2AxR-AMaqVuRE9Oi5-LgLhQR0HW9Aq1FUZs0WeHDhneEhGqSX-0g-qJ3wKKkMvDZMPLAAqTrBA4Pax67ebczr2FvVDiQtGImvaQVLwSfkD9aNmVM4o5mS99v5IZxcl4p-lKZHkoO6U5nskvO6efMNqVZg14NsZrEEKaSnwiU83aquZR5OCqCIfT0AAkHJ939jKhU2GMhHsQpdfDfEaJnHgKVnKP9P1ho5HyJnTPh-lAY-qxlXR1sG4Rr1IGErUlllA8DpvgEM4aSmGU_pd1dFU4xLiVtg-o2_WwCWQ~~)    [**» Full text HTML**](https://links.springernature.com/f/a/TNi4cXc6XIoC4BwTU_XpDw~~/AABE5hA~/CQZ5fBr3-7fgyv8RjxCKgCEfiutL6F6WiRqmaY30dGj5lGAk2AxR-AMaqVuRE9Oi5-LgLhQR0HW9Aq1FUZs0WeHDhneEhGqSX-0g-qJ3wKKkMvDZMPLAAqTrBA4Pax67ebczr2FvVDiQtGImvaQVLwSfkD9aNmVM4o5mS99v5IZxcl4p-lKZHkoO6U5nskvO6efMNqVZg14NsZrEEKaSnwiU83aquZR5OCqCIfT0AAkHJ939jKhU2GMhHsQpdfDfEaJnHgKVnKP9P1ho5HyJnTPh-lAY-qxlXR1sG4Rr1IGErUlllA8DpvgEM4aSmGU_pd1dFU4xLiVtg-o2_WwCWQ~~) [**» Full text PDF**](https://links.springernature.com/f/a/C4vjxe4Q-t_Y0evEslFPiw~~/AABE5hA~/XO-aPidHlrSVSxpZ02GlocGehoSc3kOGjlTVyKV1cE1cYZCUkUvFxm2JvzNuL_s2B_sHnPa0x_2U83WdVGSUQwTqYrVLOfJSxo_b1q07QPdTpCw1g-je6Kb4TezXMKBgpDqtkR1EGljib7HSktNzcvXV7HyjHuVvd88dM0riwbRId45aOFzFZmZ4eJfYbvG5KrSTS2Ev_2HqIIkYWSbSOz0q45oF04QJDOQCaKUEnxKGIAAWdlZjkvNBjtkJCWvHN8cKuAKpXoTb6nMRQ_cCLxtxHxONVsNvXmKGTY864Pz-FqQn9B6xP8BOLWNwbjazpjHb98-JeZUt00c0SC_-xg~~) |

 |

 |

 |

 |
|

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|

|  |  |  |  |
| --- | --- | --- | --- |
|

|  |  |  |
| --- | --- | --- |
|

|  |  |
| --- | --- |
|

|  |
| --- |
|    |

 |

 |

 |

 |

 |
|

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|

|  |  |
| --- | --- |
|

|  |
| --- |
| Research Paper |

 |

 |

|  |  |
| --- | --- |
|

|  |
| --- |
| Open Access |

 |

 |

 |

 |

 |
|

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|

|  |  |  |  |
| --- | --- | --- | --- |
|

|  |  |  |
| --- | --- | --- |
|

|  |
| --- |
| [TIG double-electrode welding: insights into electrical and geometric parameter effects on process stability and seam quality](https://links.springernature.com/f/a/XAJYv6q2ZUtHkBxx2e1nqA~~/AABE5hA~/CQZ5fBr3-7fgyv8RjxCKgCEfiutL6F6WiRqmaY30dGj5lGAk2AxR-AMaqVuRE9OisQ7p3h_27wfm6Udh3_Z9FJVNCkCGf7zJc3SjDL3KJ8ADBBKh2Orh7l368Syz7hZCwkD4VJ4J0EspeI69CnuZh1gn33a_vTrvManSChrU_aVySTiUFsC8I_4GuY9-rJDczcElJN89RycrumRJbuNIWmZ_r1FMP3n9ctgHFtHUjBS8zM0TaiWRDp0FLiaSx6RhPxdt69M_Ng3MheX_DNoMPgGIEaRvSTmhdA2qQSpsd_VLd2WSTXGHrBL-J8tdtGg9uc-IUZEVsmgkkbbO1yN_kQ~~) |
| P. Schilling, P. Synnatzschke, T. Ungethüm, H. C. Schmale |

 |

 |

 |

 |

 |
|

|  |  |  |  |
| --- | --- | --- | --- |
|

|  |  |  |
| --- | --- | --- |
|

|  |  |
| --- | --- |
|

|  |
| --- |
| [**» Abstract**](https://links.springernature.com/f/a/XAJYv6q2ZUtHkBxx2e1nqA~~/AABE5hA~/CQZ5fBr3-7fgyv8RjxCKgCEfiutL6F6WiRqmaY30dGj5lGAk2AxR-AMaqVuRE9OisQ7p3h_27wfm6Udh3_Z9FJVNCkCGf7zJc3SjDL3KJ8ADBBKh2Orh7l368Syz7hZCwkD4VJ4J0EspeI69CnuZh1gn33a_vTrvManSChrU_aVySTiUFsC8I_4GuY9-rJDczcElJN89RycrumRJbuNIWmZ_r1FMP3n9ctgHFtHUjBS8zM0TaiWRDp0FLiaSx6RhPxdt69M_Ng3MheX_DNoMPgGIEaRvSTmhdA2qQSpsd_VLd2WSTXGHrBL-J8tdtGg9uc-IUZEVsmgkkbbO1yN_kQ~~)    [**» Full text HTML**](https://links.springernature.com/f/a/XAJYv6q2ZUtHkBxx2e1nqA~~/AABE5hA~/CQZ5fBr3-7fgyv8RjxCKgCEfiutL6F6WiRqmaY30dGj5lGAk2AxR-AMaqVuRE9OisQ7p3h_27wfm6Udh3_Z9FJVNCkCGf7zJc3SjDL3KJ8ADBBKh2Orh7l368Syz7hZCwkD4VJ4J0EspeI69CnuZh1gn33a_vTrvManSChrU_aVySTiUFsC8I_4GuY9-rJDczcElJN89RycrumRJbuNIWmZ_r1FMP3n9ctgHFtHUjBS8zM0TaiWRDp0FLiaSx6RhPxdt69M_Ng3MheX_DNoMPgGIEaRvSTmhdA2qQSpsd_VLd2WSTXGHrBL-J8tdtGg9uc-IUZEVsmgkkbbO1yN_kQ~~) [**» Full text PDF**](https://links.springernature.com/f/a/14RTT6TtclbQzWeDV2x-9w~~/AABE5hA~/XO-aPidHlrSVSxpZ02GlocGehoSc3kOGjlTVyKV1cE1cYZCUkUvFxm2JvzNuL_s2B_sHnPa0x_2U83WdVGSUQwfQelF614nfA-nY2DJMKiv8H7R-FTGVjheJVuprIEDLRe6U4fFvXP1wd3p6YmW5pZbiBo-2HnxR-A59mR_m3KI_gCPIp_tqxPF55ukzulvKDadpzIZuFcM9tbstJ7lgrQtYaa_zMGxyHaD-2Ee_8iG9rIlBeeEVNTAA32mp35nCWMYxmXuYAG9jFfJQ9y_i50mSpkSH8avEQ5AAX-RTxlIwthQ5QGcV7Ldwruu-s9yflg8z-FjKzp7x8z_v06splw~~) |

 |

 |

 |

 |
|

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|

|  |  |  |  |
| --- | --- | --- | --- |
|

|  |  |  |
| --- | --- | --- |
|

|  |  |
| --- | --- |
|

|  |
| --- |
|    |

 |

 |

 |

 |

 |
|

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|

|  |  |
| --- | --- |
|

|  |
| --- |
| Research Paper |

 |

 |

|  |  |
| --- | --- |
|

|  |
| --- |
|  |

 |

 |

 |

 |

 |
|

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|

|  |  |  |  |
| --- | --- | --- | --- |
|

|  |  |  |
| --- | --- | --- |
|

|  |
| --- |
| [Seam tracking and visual welding control in lap joint welding with Otsu’s thresholding and Gaussian line detection](https://links.springernature.com/f/a/rd8ofJK09r1AvLI2xyHXXg~~/AABE5hA~/CQZ5fBr3-7fgyv8RjxCKgCEfiutL6F6WiRqmaY30dGj5lGAk2AxR-AMaqVuRE9OisQ7p3h_27wfm6Udh3_Z9FNjSZqDOYe3pQoccvCtXamSx5dY7_62M7-WQKSZIvb0aqn4GKNWtLKrmv91GnFqmruPu_6yHN0O0SlIEpQYkFIIg56ywAiO6CXKn_AwcKnDrxi8F6qkTrDwemuEVU__Xw4fWlwr5VbrONI6BqvArGRBg5-k2eYCfl_JcBbKrEFQ88LRzG48C-LAE6GJ1xnxhEVytoW1SmesIIMrFvNyboN2vM2HSZlrYzAyVFh1o4wCbCveNUTid02NDPssYQtVUNA~~) |
| Weixi Wang, Xiaoqing Zhang, Zheng Zhang, Satoshi Yamane, Qi Wang, Liang Shan, Bochao Zheng, Yuxiong Xia, Dalu Wang |

 |

 |

 |

 |

 |
|

|  |  |  |  |
| --- | --- | --- | --- |
|

|  |  |  |
| --- | --- | --- |
|

|  |  |
| --- | --- |
|

|  |
| --- |
| [**» Abstract**](https://links.springernature.com/f/a/rd8ofJK09r1AvLI2xyHXXg~~/AABE5hA~/CQZ5fBr3-7fgyv8RjxCKgCEfiutL6F6WiRqmaY30dGj5lGAk2AxR-AMaqVuRE9OisQ7p3h_27wfm6Udh3_Z9FNjSZqDOYe3pQoccvCtXamSx5dY7_62M7-WQKSZIvb0aqn4GKNWtLKrmv91GnFqmruPu_6yHN0O0SlIEpQYkFIIg56ywAiO6CXKn_AwcKnDrxi8F6qkTrDwemuEVU__Xw4fWlwr5VbrONI6BqvArGRBg5-k2eYCfl_JcBbKrEFQ88LRzG48C-LAE6GJ1xnxhEVytoW1SmesIIMrFvNyboN2vM2HSZlrYzAyVFh1o4wCbCveNUTid02NDPssYQtVUNA~~)    [**» Full text HTML**](https://links.springernature.com/f/a/rd8ofJK09r1AvLI2xyHXXg~~/AABE5hA~/CQZ5fBr3-7fgyv8RjxCKgCEfiutL6F6WiRqmaY30dGj5lGAk2AxR-AMaqVuRE9OisQ7p3h_27wfm6Udh3_Z9FNjSZqDOYe3pQoccvCtXamSx5dY7_62M7-WQKSZIvb0aqn4GKNWtLKrmv91GnFqmruPu_6yHN0O0SlIEpQYkFIIg56ywAiO6CXKn_AwcKnDrxi8F6qkTrDwemuEVU__Xw4fWlwr5VbrONI6BqvArGRBg5-k2eYCfl_JcBbKrEFQ88LRzG48C-LAE6GJ1xnxhEVytoW1SmesIIMrFvNyboN2vM2HSZlrYzAyVFh1o4wCbCveNUTid02NDPssYQtVUNA~~) [**» Full text PDF**](https://links.springernature.com/f/a/H6p_sLnb9DUk5CU14wfHpQ~~/AABE5hA~/XO-aPidHlrSVSxpZ02GlocGehoSc3kOGjlTVyKV1cE1cYZCUkUvFxm2JvzNuL_s2B_sHnPa0x_2U83WdVGSUQ8NAzFrcnpSTphqkI1VWH6cAXL_F80f7LPbS8_Wo5Kc3AB_LYNlVnoC6mAwWQiS7S83j1pjmV5VsqVxFIe6TPR6mV8uzM-eRaQpSnUKvp0HTGdmd4AyOyBKeHffHl-xLoeqILycCHJ_rIu_JP4JuqODzd4UWRHJV2_Ey6ybk9bgXFc1P-IycB9ZWB3blr6LlV4tkhedI_Wl5ptpa2-50dPNH8QE2UQQtHrlNUEXSTUeo19XYUX2ABIbaBWEgRv5jTQ~~) |

 |

 |

 |

 |
|

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|

|  |  |  |  |
| --- | --- | --- | --- |
|

|  |  |  |
| --- | --- | --- |
|

|  |  |
| --- | --- |
|

|  |
| --- |
|    |

 |

 |

 |

 |

 |
|

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|

|  |  |
| --- | --- |
|

|  |
| --- |
| Review Article |

 |

 |

|  |  |
| --- | --- |
|

|  |
| --- |
|  |

 |

 |

 |

 |

 |
|

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|

|  |  |  |  |
| --- | --- | --- | --- |
|

|  |  |  |
| --- | --- | --- |
|

|  |
| --- |
| [Impact of welding current on arc physical characteristics in single-power, double-wire, single-arc gas metal arc welding](https://links.springernature.com/f/a/g8kDwQMSZi49K691HJSGhQ~~/AABE5hA~/CQZ5fBr3-7fgyv8RjxCKgCEfiutL6F6WiRqmaY30dGj5lGAk2AxR-AMaqVuRE9OisQ7p3h_27wfm6Udh3_Z9FEztI1JBdOok6_h_q0S8k0X0bwVGbkwMiEX_JPZ8SzvlDj2ja6TmCZbA-gpwYiXjzfAII9lMWv5xTz_Ab_fAIle5RZkbGuQt7ZtvaiJmUsCOjQAmFF8G5yH1xPllUaTX0ht_1f0wsbOlBjKi1sIr7v-fTNiyi_RcQm6s6KiIttsLUndHiusfUKVmxM-CoVQRvTJ-9GNtChgbfGCRcdeNCDK7IKhbCYH9je5FvJ5IXRHLLv0TAXfS4TsMMN5wzy1odQ~~) |
| Xiaoli Wang, Qi Zhang, Yangsen Liu, Chengfu Luo, Qingxian Hu |

 |

 |

 |

 |

 |
|

|  |  |  |  |
| --- | --- | --- | --- |
|

|  |  |  |
| --- | --- | --- |
|

|  |  |
| --- | --- |
|

|  |
| --- |
| [**» Abstract**](https://links.springernature.com/f/a/g8kDwQMSZi49K691HJSGhQ~~/AABE5hA~/CQZ5fBr3-7fgyv8RjxCKgCEfiutL6F6WiRqmaY30dGj5lGAk2AxR-AMaqVuRE9OisQ7p3h_27wfm6Udh3_Z9FEztI1JBdOok6_h_q0S8k0X0bwVGbkwMiEX_JPZ8SzvlDj2ja6TmCZbA-gpwYiXjzfAII9lMWv5xTz_Ab_fAIle5RZkbGuQt7ZtvaiJmUsCOjQAmFF8G5yH1xPllUaTX0ht_1f0wsbOlBjKi1sIr7v-fTNiyi_RcQm6s6KiIttsLUndHiusfUKVmxM-CoVQRvTJ-9GNtChgbfGCRcdeNCDK7IKhbCYH9je5FvJ5IXRHLLv0TAXfS4TsMMN5wzy1odQ~~)    [**» Full text HTML**](https://links.springernature.com/f/a/g8kDwQMSZi49K691HJSGhQ~~/AABE5hA~/CQZ5fBr3-7fgyv8RjxCKgCEfiutL6F6WiRqmaY30dGj5lGAk2AxR-AMaqVuRE9OisQ7p3h_27wfm6Udh3_Z9FEztI1JBdOok6_h_q0S8k0X0bwVGbkwMiEX_JPZ8SzvlDj2ja6TmCZbA-gpwYiXjzfAII9lMWv5xTz_Ab_fAIle5RZkbGuQt7ZtvaiJmUsCOjQAmFF8G5yH1xPllUaTX0ht_1f0wsbOlBjKi1sIr7v-fTNiyi_RcQm6s6KiIttsLUndHiusfUKVmxM-CoVQRvTJ-9GNtChgbfGCRcdeNCDK7IKhbCYH9je5FvJ5IXRHLLv0TAXfS4TsMMN5wzy1odQ~~) [**» Full text PDF**](https://links.springernature.com/f/a/gmHDgheareReRaTIm9XGJw~~/AABE5hA~/XO-aPidHlrSVSxpZ02GlocGehoSc3kOGjlTVyKV1cE1cYZCUkUvFxm2JvzNuL_s2B_sHnPa0x_2U83WdVGSUQ9zcWTDM1ENDabe3R1pDGlLy1UCbfrQDeSb7dfFJJZvfdwMqXbZ30ghjKReSCF1pYJzDPFG_uZ_curILa-mQpF7Lm9C7YIfx5u8VOh8mAvl3boY_qcSPh4jiC6BXM6UZeumorMeYdW5YfTvain64e3WsYHYHQHl1lkMkjsTtQOCjo5QxAmnLgeGHlNYJTBR4E03jvOh9mSI7PA8L0FlXUCgX-2DKsahli54WkjWLRlXtgHiq6ePO5LRaI-QeSEDUwQ~~) |

 |

 |

 |

 |
|

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|

|  |  |  |  |
| --- | --- | --- | --- |
|

|  |  |  |
| --- | --- | --- |
|

|  |  |
| --- | --- |
|

|  |
| --- |
|    |

 |

 |

 |

 |

 |
|

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|

|  |  |
| --- | --- |
|

|  |
| --- |
| Research Paper |

 |

 |

|  |  |
| --- | --- |
|

|  |
| --- |
|  |

 |

 |

 |

 |

 |
|

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|

|  |  |  |  |
| --- | --- | --- | --- |
|

|  |  |  |
| --- | --- | --- |
|

|  |
| --- |
| [Element mixing in micro GTA lap joining of Al and Cu foils](https://links.springernature.com/f/a/kEYXfbZLmAcKzCWr0m5OFw~~/AABE5hA~/CQZ5fBr3-7fgyv8RjxCKgCEfiutL6F6WiRqmaY30dGj5lGAk2AxR-AMaqVuRE9OiLIgd2GL5m1vPrdLxzQ3pZY89pSzYECl6gJrGpTsB6HbHlMll3JiGcNPGy_q2LIrM7OLtuJNgCKs-qRYWXF28DJPDqBQLROHkGAevGR32axtFvdgDxg6GJobzNeLqHn1rXy_zqR3VNNryqjavDjzJS0n0q3rMC2DmfCYuQYVjPm5-cUHRTJQJzcsBnWG676zP3FEkjDxoPfaBTx9ZegrnbMp8YDv_G6BndbEHoV_ua6VlJ5U2v92V0303vXIh-RLJfEyc_15KAr9ZAQy3n7z7XA~~) |
| Dongsheng Wu, Hisaya Komen, Yuki Asai, Manabu Tanaka, Tadasuke Murata, Akihisa Murata |

 |

 |

 |

 |

 |
|

|  |  |  |  |
| --- | --- | --- | --- |
|

|  |  |  |
| --- | --- | --- |
|

|  |  |
| --- | --- |
|

|  |
| --- |
| [**» Abstract**](https://links.springernature.com/f/a/kEYXfbZLmAcKzCWr0m5OFw~~/AABE5hA~/CQZ5fBr3-7fgyv8RjxCKgCEfiutL6F6WiRqmaY30dGj5lGAk2AxR-AMaqVuRE9OiLIgd2GL5m1vPrdLxzQ3pZY89pSzYECl6gJrGpTsB6HbHlMll3JiGcNPGy_q2LIrM7OLtuJNgCKs-qRYWXF28DJPDqBQLROHkGAevGR32axtFvdgDxg6GJobzNeLqHn1rXy_zqR3VNNryqjavDjzJS0n0q3rMC2DmfCYuQYVjPm5-cUHRTJQJzcsBnWG676zP3FEkjDxoPfaBTx9ZegrnbMp8YDv_G6BndbEHoV_ua6VlJ5U2v92V0303vXIh-RLJfEyc_15KAr9ZAQy3n7z7XA~~)    [**» Full text HTML**](https://links.springernature.com/f/a/kEYXfbZLmAcKzCWr0m5OFw~~/AABE5hA~/CQZ5fBr3-7fgyv8RjxCKgCEfiutL6F6WiRqmaY30dGj5lGAk2AxR-AMaqVuRE9OiLIgd2GL5m1vPrdLxzQ3pZY89pSzYECl6gJrGpTsB6HbHlMll3JiGcNPGy_q2LIrM7OLtuJNgCKs-qRYWXF28DJPDqBQLROHkGAevGR32axtFvdgDxg6GJobzNeLqHn1rXy_zqR3VNNryqjavDjzJS0n0q3rMC2DmfCYuQYVjPm5-cUHRTJQJzcsBnWG676zP3FEkjDxoPfaBTx9ZegrnbMp8YDv_G6BndbEHoV_ua6VlJ5U2v92V0303vXIh-RLJfEyc_15KAr9ZAQy3n7z7XA~~) [**» Full text PDF**](https://links.springernature.com/f/a/Lhxx6x6pFprV4xJpO2Z8bA~~/AABE5hA~/XO-aPidHlrSVSxpZ02GlocGehoSc3kOGjlTVyKV1cE1cYZCUkUvFxm2JvzNuL_s2B_sHnPa0x_2U83WdVGSUQ3xZUpbwhqa9cxG_u1W6QcP1V_jmRswx9ii8HXtmq2eJhPjmDR-PSI81avN0nVpKdw9CDooedQtWb3K4mdfoQoRHuaKofOdhSwhsqlc6SWpIBv9I_z_2_3eQPrCShTiLY8W7mAt0YfEeIXMoZG5r-05XfLrWE3aN9OBgFq54oYI93Vfr1riCDQAu7Fhz93oSIdUAzNiG1vtH6n69x2enqH8K6lmezCMKUV3rp-k0WS9e9F6EV1ohyn1cRheotkvQTg~~) |

 |

 |

 |

 |
|

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|

|  |  |  |  |
| --- | --- | --- | --- |
|

|  |  |  |
| --- | --- | --- |
|

|  |  |
| --- | --- |
|

|  |
| --- |
|    |

 |

 |

 |

 |

 |
|

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|

|  |  |
| --- | --- |
|

|  |
| --- |
| Research Paper |

 |

 |

|  |  |
| --- | --- |
|

|  |
| --- |
|  |

 |

 |

 |

 |

 |
|

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|

|  |  |  |  |
| --- | --- | --- | --- |
|

|  |  |  |
| --- | --- | --- |
|

|  |
| --- |
| [Narrow gap welding of titanium alloy samples with variable thickness and controlled magnetic field](https://links.springernature.com/f/a/j2tkDLrLIJuCIHwmp49TTA~~/AABE5hA~/CQZ5fBr3-7fgyv8RjxCKgCEfiutL6F6WiRqmaY30dGj5lGAk2AxR-AMaqVuRE9OiLIgd2GL5m1vPrdLxzQ3pZThGP4GYpr1UlKEwS5jYraO30uQ1ME6Mms612xVrEB7DnQHOcID4nWfJI8DRAuTMa5ER0Xsnwpr7m9dAH2JtPw69x-4nXPLyX3rM9MIFKu_LgGF1hu-DUks132TIB_2TIevEm87X1A9mlvZYGWbNMq_MKPN-qBdAiDlVxzTR9Hw3jsAeS9Tfnb1nH9FmH3BBzyxuuZNB1A96NAsWYzmr0KKv__jvHfGJBoXSBGzN9GsowweqDtDF1mYVKpcncmfEhA~~) |
| S. Akhonin, V. Bilous, R. Selin, Y. Zhang, B. Qin, H. Wang |

 |

 |

 |

 |

 |
|

|  |  |  |  |
| --- | --- | --- | --- |
|

|  |  |  |
| --- | --- | --- |
|

|  |  |
| --- | --- |
|

|  |
| --- |
| [**» Abstract**](https://links.springernature.com/f/a/j2tkDLrLIJuCIHwmp49TTA~~/AABE5hA~/CQZ5fBr3-7fgyv8RjxCKgCEfiutL6F6WiRqmaY30dGj5lGAk2AxR-AMaqVuRE9OiLIgd2GL5m1vPrdLxzQ3pZThGP4GYpr1UlKEwS5jYraO30uQ1ME6Mms612xVrEB7DnQHOcID4nWfJI8DRAuTMa5ER0Xsnwpr7m9dAH2JtPw69x-4nXPLyX3rM9MIFKu_LgGF1hu-DUks132TIB_2TIevEm87X1A9mlvZYGWbNMq_MKPN-qBdAiDlVxzTR9Hw3jsAeS9Tfnb1nH9FmH3BBzyxuuZNB1A96NAsWYzmr0KKv__jvHfGJBoXSBGzN9GsowweqDtDF1mYVKpcncmfEhA~~)    [**» Full text HTML**](https://links.springernature.com/f/a/j2tkDLrLIJuCIHwmp49TTA~~/AABE5hA~/CQZ5fBr3-7fgyv8RjxCKgCEfiutL6F6WiRqmaY30dGj5lGAk2AxR-AMaqVuRE9OiLIgd2GL5m1vPrdLxzQ3pZThGP4GYpr1UlKEwS5jYraO30uQ1ME6Mms612xVrEB7DnQHOcID4nWfJI8DRAuTMa5ER0Xsnwpr7m9dAH2JtPw69x-4nXPLyX3rM9MIFKu_LgGF1hu-DUks132TIB_2TIevEm87X1A9mlvZYGWbNMq_MKPN-qBdAiDlVxzTR9Hw3jsAeS9Tfnb1nH9FmH3BBzyxuuZNB1A96NAsWYzmr0KKv__jvHfGJBoXSBGzN9GsowweqDtDF1mYVKpcncmfEhA~~) [**» Full text PDF**](https://links.springernature.com/f/a/EIKGrYp1gNnDvAIbkAGO9w~~/AABE5hA~/XO-aPidHlrSVSxpZ02GlocGehoSc3kOGjlTVyKV1cE1cYZCUkUvFxm2JvzNuL_s2B_sHnPa0x_2U83WdVGSUQ6sWcZ4voQsVRackNLUrUT0pVbOmoJOlx1VKjzt9uBv3six08Ia4SowJc9hARNdAyUJs9jU-k1gqUyJDXrZTjOut2R5Ha6E6AkYByHrBkOkpsJqTRlU4UlYw2HE5I8UORyLJ58O1r_BopOoTqUHRY_gBKhALxMomLNNVV9S4Kuuq6EnYnb_oBHyBbrkMlZbFzWCVoaqkGH2Q6reuMNHO9CkRkl63A71fWZy_w17xPbKOVovY0yI6KWh_DYloZAIFEg~~) |

 |

 |

 |

 |
|

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|

|  |  |  |  |
| --- | --- | --- | --- |
|

|  |  |  |
| --- | --- | --- |
|

|  |  |
| --- | --- |
|

|  |
| --- |
|    |

 |

 |

 |

 |

 |
|

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|

|  |  |
| --- | --- |
|

|  |
| --- |
| Research Paper |

 |

 |

|  |  |
| --- | --- |
|

|  |
| --- |
|  |

 |

 |

 |

 |

 |
|

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|

|  |  |  |  |
| --- | --- | --- | --- |
|

|  |  |  |
| --- | --- | --- |
|

|  |
| --- |
| [Effect of high-frequency pulse frequency on arc characteristics and weld formation of aluminum alloy in variable polarity high-frequency pulse GMAW](https://links.springernature.com/f/a/5Cxn_5J3i2e6fn0QS2yZrQ~~/AABE5hA~/CQZ5fBr3-7fgyv8RjxCKgCEfiutL6F6WiRqmaY30dGj5lGAk2AxR-AMaqVuRE9OiLIgd2GL5m1vPrdLxzQ3pZWU56VT7_b7XczsAHUlASwN-34oO10bOfMb_pwPMA_7mTxJAnrUT99HGGJrFTs_r0-6hfUzrx3Smp73efMDdF5YQdJQHGz48FcxEVDz3U7XHLmGdowFGSEUGBoT7wnY57JTQu8FTpKTaTqiBoaT9Xbp19OdAq839ZmFpSksq87DsfGWwHkk9oiuveJU4fNDjROr54qZE0u_eQU6k3EyfbLcVE-AJwaG6pJdvukOY_KAYw-SWMR9yt02zgt5Tm35L7A~~) |
| Kaiyuan Wu, Zitao Liu, Qianrun Chen, Yongming Wu, Ziwei Chen, Xiaobin Hong |

 |

 |

 |

 |

 |
|

|  |  |  |  |
| --- | --- | --- | --- |
|

|  |  |  |
| --- | --- | --- |
|

|  |  |
| --- | --- |
|

|  |
| --- |
| [**» Abstract**](https://links.springernature.com/f/a/5Cxn_5J3i2e6fn0QS2yZrQ~~/AABE5hA~/CQZ5fBr3-7fgyv8RjxCKgCEfiutL6F6WiRqmaY30dGj5lGAk2AxR-AMaqVuRE9OiLIgd2GL5m1vPrdLxzQ3pZWU56VT7_b7XczsAHUlASwN-34oO10bOfMb_pwPMA_7mTxJAnrUT99HGGJrFTs_r0-6hfUzrx3Smp73efMDdF5YQdJQHGz48FcxEVDz3U7XHLmGdowFGSEUGBoT7wnY57JTQu8FTpKTaTqiBoaT9Xbp19OdAq839ZmFpSksq87DsfGWwHkk9oiuveJU4fNDjROr54qZE0u_eQU6k3EyfbLcVE-AJwaG6pJdvukOY_KAYw-SWMR9yt02zgt5Tm35L7A~~)    [**» Full text HTML**](https://links.springernature.com/f/a/5Cxn_5J3i2e6fn0QS2yZrQ~~/AABE5hA~/CQZ5fBr3-7fgyv8RjxCKgCEfiutL6F6WiRqmaY30dGj5lGAk2AxR-AMaqVuRE9OiLIgd2GL5m1vPrdLxzQ3pZWU56VT7_b7XczsAHUlASwN-34oO10bOfMb_pwPMA_7mTxJAnrUT99HGGJrFTs_r0-6hfUzrx3Smp73efMDdF5YQdJQHGz48FcxEVDz3U7XHLmGdowFGSEUGBoT7wnY57JTQu8FTpKTaTqiBoaT9Xbp19OdAq839ZmFpSksq87DsfGWwHkk9oiuveJU4fNDjROr54qZE0u_eQU6k3EyfbLcVE-AJwaG6pJdvukOY_KAYw-SWMR9yt02zgt5Tm35L7A~~) [**» Full text PDF**](https://links.springernature.com/f/a/PE3e6onteCdHwgVZ5jF_8Q~~/AABE5hA~/XO-aPidHlrSVSxpZ02GlocGehoSc3kOGjlTVyKV1cE1cYZCUkUvFxm2JvzNuL_s2B_sHnPa0x_2U83WdVGSUQ_5yP4kTXP_9U3u8bo3eN0lwK8H6EJ49d-MBvJ9vutAiEF-k567HkJeP2-rj2OIXGnAryV_dY2AWtxJmoYgxL_k8o0J06GZWjpUF9J7R21rqqGOyX-Rc_e1Whbi5gUi0V3PTgOcuq-ZHDNimf1g10WSP5DOb2OLaOpqEJRxUhEN_5VxkUPH_x1FDqwHJaPu04mbLmgLhYpW43Gmh0d91qhyiQDqjuz8tVQZdfJWiHt1HciPg6NIHTxXmYXUzT2_qZA~~) |

 |

 |

 |

 |
|

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|

|  |  |  |  |
| --- | --- | --- | --- |
|

|  |  |  |
| --- | --- | --- |
|

|  |  |
| --- | --- |
|

|  |
| --- |
|    |

 |

 |

 |

 |

 |
|

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|

|  |  |
| --- | --- |
|

|  |
| --- |
| Research Paper |

 |

 |

|  |  |
| --- | --- |
|

|  |
| --- |
| Open Access |

 |

 |

 |

 |

 |
|

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|

|  |  |  |  |
| --- | --- | --- | --- |
|

|  |  |  |
| --- | --- | --- |
|

|  |
| --- |
| [Detection of molten pool state using ResNet50 and control of molten pool penetration in CO2 gas shielded arc welding](https://links.springernature.com/f/a/4FaIOaYoIz3AlMv5Zn2k5g~~/AABE5hA~/CQZ5fBr3-7fgyv8RjxCKgCEfiutL6F6WiRqmaY30dGj5lGAk2AxR-AMaqVuRE9OiLIgd2GL5m1vPrdLxzQ3pZfBh2OgFjRejpXCwo69uRZuZ1XE0sZl6qI5M5oLkK0sFVQmOZlEv2wTZVIMXYt1MYN0nCRzmBiVY8d3qvb1yFyAnlnb42bPbsb6REOpvUawovrciZJgbLz7s4gxUkIsFnWv70MAfCcUvysMV1Ujqkc9fbd9zNnj5PZcwifX_UxXCdeiLPnFQvHzdNM1lnuIeC6HeoeVN9UxNuI5dSiQoC41cYVHLUHQhJfL0_BT-KTndnwXn40vvH_fXf-LBVA_Ceg~~) |
| Satoshi Yamane, ChuanZhi Wang, Takahito Nakamura, Takuya Nagai, Keito Ishizaki |

 |

 |

 |

 |

 |
|

|  |  |  |  |
| --- | --- | --- | --- |
|

|  |  |  |
| --- | --- | --- |
|

|  |  |
| --- | --- |
|

|  |
| --- |
| [**» Abstract**](https://links.springernature.com/f/a/4FaIOaYoIz3AlMv5Zn2k5g~~/AABE5hA~/CQZ5fBr3-7fgyv8RjxCKgCEfiutL6F6WiRqmaY30dGj5lGAk2AxR-AMaqVuRE9OiLIgd2GL5m1vPrdLxzQ3pZfBh2OgFjRejpXCwo69uRZuZ1XE0sZl6qI5M5oLkK0sFVQmOZlEv2wTZVIMXYt1MYN0nCRzmBiVY8d3qvb1yFyAnlnb42bPbsb6REOpvUawovrciZJgbLz7s4gxUkIsFnWv70MAfCcUvysMV1Ujqkc9fbd9zNnj5PZcwifX_UxXCdeiLPnFQvHzdNM1lnuIeC6HeoeVN9UxNuI5dSiQoC41cYVHLUHQhJfL0_BT-KTndnwXn40vvH_fXf-LBVA_Ceg~~)    [**» Full text HTML**](https://links.springernature.com/f/a/4FaIOaYoIz3AlMv5Zn2k5g~~/AABE5hA~/CQZ5fBr3-7fgyv8RjxCKgCEfiutL6F6WiRqmaY30dGj5lGAk2AxR-AMaqVuRE9OiLIgd2GL5m1vPrdLxzQ3pZfBh2OgFjRejpXCwo69uRZuZ1XE0sZl6qI5M5oLkK0sFVQmOZlEv2wTZVIMXYt1MYN0nCRzmBiVY8d3qvb1yFyAnlnb42bPbsb6REOpvUawovrciZJgbLz7s4gxUkIsFnWv70MAfCcUvysMV1Ujqkc9fbd9zNnj5PZcwifX_UxXCdeiLPnFQvHzdNM1lnuIeC6HeoeVN9UxNuI5dSiQoC41cYVHLUHQhJfL0_BT-KTndnwXn40vvH_fXf-LBVA_Ceg~~) [**» Full text PDF**](https://links.springernature.com/f/a/0KtDYuS1Bkt5-BhxoglRcw~~/AABE5hA~/XO-aPidHlrSVSxpZ02GlocGehoSc3kOGjlTVyKV1cE1cYZCUkUvFxm2JvzNuL_s2B_sHnPa0x_2U83WdVGSUQ3mBUBi9Y6IOkGiAPoFOYn6cMyzwBPyBYBN417gbr160R_ywB_z2PDjlh5omNky9OD0TdNZQreSR1UjkYXY_4axiWjzHIR5Skdeb8UjG9sxcFqwLkhUKlZAXKZUXzf5tdFu4tnpdNOwsfbeEEjA3eJgVF5-N27ykv9t-Sq8eMPlfJNMMer6hPF_PWx9WuZ01Lr6BGwVN5yLomIut3o1-CGLFX3ltu1_SLxuTbWJWYY9JX4KtXOUCkapwlSUtwRVAgg~~) |

 |

 |

 |

 |
|

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|

|  |  |  |  |
| --- | --- | --- | --- |
|

|  |  |  |
| --- | --- | --- |
|

|  |  |
| --- | --- |
|

|  |
| --- |
|    |

 |

 |

 |

 |

 |
|

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|

|  |  |
| --- | --- |
|

|  |
| --- |
| Research Paper |

 |

 |

|  |  |
| --- | --- |
|

|  |
| --- |
| Open Access |

 |

 |

 |

 |

 |
|

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|

|  |  |  |  |
| --- | --- | --- | --- |
|

|  |  |  |
| --- | --- | --- |
|

|  |
| --- |
| [Real-time determination of weld penetration status during A-TIG welding of stainless steel employing deep learning approach](https://links.springernature.com/f/a/WvaiXJng7hXg6eb_VK5Vkg~~/AABE5hA~/CQZ5fBr3-7fgyv8RjxCKgCEfiutL6F6WiRqmaY30dGj5lGAk2AxR-AMaqVuRE9OiLIgd2GL5m1vPrdLxzQ3pZaKPcE88UmnnRWg22PDMgSp980y4NsMGec-lo05puvRs8U_q_EwtktaXbF6tbrbqWRRdGhCZzlbBWLUtgA6yBCGtW2juB6TzWmwd-eS0VkJLjnr8jP3_0_zHpTaWr3g_sHYIF5VSlkhQXLAVZEvYuT3CNLsr5AHxXymkhKOpG8p7AZn6qRA_PGZJDA8xuYZDXSOb85EYxp0G4CTljBroI8IX0pNz3ubyYi0R2-_3B44kzzrKdzHzG54Mwg6YnV7h0Q~~) |
| N. Chandrasekhar, Vasudevan Muthukumaran, C. R. Das |

 |

 |

 |

 |

 |
|

|  |  |  |  |
| --- | --- | --- | --- |
|

|  |  |  |
| --- | --- | --- |
|

|  |  |
| --- | --- |
|

|  |
| --- |
| [**» Abstract**](https://links.springernature.com/f/a/WvaiXJng7hXg6eb_VK5Vkg~~/AABE5hA~/CQZ5fBr3-7fgyv8RjxCKgCEfiutL6F6WiRqmaY30dGj5lGAk2AxR-AMaqVuRE9OiLIgd2GL5m1vPrdLxzQ3pZaKPcE88UmnnRWg22PDMgSp980y4NsMGec-lo05puvRs8U_q_EwtktaXbF6tbrbqWRRdGhCZzlbBWLUtgA6yBCGtW2juB6TzWmwd-eS0VkJLjnr8jP3_0_zHpTaWr3g_sHYIF5VSlkhQXLAVZEvYuT3CNLsr5AHxXymkhKOpG8p7AZn6qRA_PGZJDA8xuYZDXSOb85EYxp0G4CTljBroI8IX0pNz3ubyYi0R2-_3B44kzzrKdzHzG54Mwg6YnV7h0Q~~)    [**» Full text HTML**](https://links.springernature.com/f/a/WvaiXJng7hXg6eb_VK5Vkg~~/AABE5hA~/CQZ5fBr3-7fgyv8RjxCKgCEfiutL6F6WiRqmaY30dGj5lGAk2AxR-AMaqVuRE9OiLIgd2GL5m1vPrdLxzQ3pZaKPcE88UmnnRWg22PDMgSp980y4NsMGec-lo05puvRs8U_q_EwtktaXbF6tbrbqWRRdGhCZzlbBWLUtgA6yBCGtW2juB6TzWmwd-eS0VkJLjnr8jP3_0_zHpTaWr3g_sHYIF5VSlkhQXLAVZEvYuT3CNLsr5AHxXymkhKOpG8p7AZn6qRA_PGZJDA8xuYZDXSOb85EYxp0G4CTljBroI8IX0pNz3ubyYi0R2-_3B44kzzrKdzHzG54Mwg6YnV7h0Q~~) [**» Full text PDF**](https://links.springernature.com/f/a/EsBlHRH5ANtLHHx6RtQ3hQ~~/AABE5hA~/XO-aPidHlrSVSxpZ02GlocGehoSc3kOGjlTVyKV1cE1cYZCUkUvFxm2JvzNuL_s2B_sHnPa0x_2U83WdVGSUQzFwtBsqgJ1a3ALI_1ImUE8nMVLc-BmQgPQt9bblzeJfh5woMNn067gMDxDTc96N4mi4y2OwbEWxuGMH1H2fgwExaLrEKRUc-NV9PMaC-8iVPvDDtyTSrB01IMbI3l6GSZgN-BfMMuxwqQQOCws6TUSsHFGLNxeKVOwh2PRQ4m_-WcG2_bgvzpWXkFw501wX-xGBbFVAC53Kwk5niArIIpGgx2k24cfsUQYhDgawIGlKhrb04vrlkFsiOy4nC2ltlw~~) |

 |

 |

 |

 |
|

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|

|  |  |  |  |
| --- | --- | --- | --- |
|

|  |  |  |
| --- | --- | --- |
|

|  |  |
| --- | --- |
|

|  |
| --- |
|    |

 |

 |

 |

 |

 |
|

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|

|  |  |
| --- | --- |
|

|  |
| --- |
| Research Paper |

 |

 |

|  |  |
| --- | --- |
|

|  |
| --- |
|  |

 |

 |

 |

 |

 |
|

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|

|  |  |  |  |
| --- | --- | --- | --- |
|

|  |  |  |
| --- | --- | --- |
|

|  |
| --- |
| [Influence of activated flux on the mechanical and microstructural response of cold metal transfer welded AA6063-MgAZ31B dissimilar alloy](https://links.springernature.com/f/a/v0BEU2kXLIjIcIXu61v0qg~~/AABE5hA~/CQZ5fBr3-7fgyv8RjxCKgCEfiutL6F6WiRqmaY30dGj5lGAk2AxR-AMaqVuRE9OiLIgd2GL5m1vPrdLxzQ3pZafP2svxostJEl4pYfPyijUQicvXzqsLPHY8WbvdB2huKTkXNfWoKPi3WUomIEUP4MneEA2DMr1FSSpft-FOAQ_YrGv7U-txUeiUW1xHMsQFlMWyXHr6Fm0CwKoviG9WAPVqqySVKoGp4EJRtGNGDDHQ_KYSme5CTeVqzkTneBaOI14xMnYaMi9_6LZfPQyBPKbX9JX57pugFqPwWPcFVXXQvCp4TI7PzWRw-EVVs_WKsVIQzArpa5ltVw27IBSsoA~~) |
| Abhi Bansal, S. C. Vettivel, Mukesh Kumar |

 |

 |

 |

 |

 |
|

|  |  |  |  |
| --- | --- | --- | --- |
|

|  |  |  |
| --- | --- | --- |
|

|  |  |
| --- | --- |
|

|  |
| --- |
| [**» Abstract**](https://links.springernature.com/f/a/v0BEU2kXLIjIcIXu61v0qg~~/AABE5hA~/CQZ5fBr3-7fgyv8RjxCKgCEfiutL6F6WiRqmaY30dGj5lGAk2AxR-AMaqVuRE9OiLIgd2GL5m1vPrdLxzQ3pZafP2svxostJEl4pYfPyijUQicvXzqsLPHY8WbvdB2huKTkXNfWoKPi3WUomIEUP4MneEA2DMr1FSSpft-FOAQ_YrGv7U-txUeiUW1xHMsQFlMWyXHr6Fm0CwKoviG9WAPVqqySVKoGp4EJRtGNGDDHQ_KYSme5CTeVqzkTneBaOI14xMnYaMi9_6LZfPQyBPKbX9JX57pugFqPwWPcFVXXQvCp4TI7PzWRw-EVVs_WKsVIQzArpa5ltVw27IBSsoA~~)    [**» Full text HTML**](https://links.springernature.com/f/a/v0BEU2kXLIjIcIXu61v0qg~~/AABE5hA~/CQZ5fBr3-7fgyv8RjxCKgCEfiutL6F6WiRqmaY30dGj5lGAk2AxR-AMaqVuRE9OiLIgd2GL5m1vPrdLxzQ3pZafP2svxostJEl4pYfPyijUQicvXzqsLPHY8WbvdB2huKTkXNfWoKPi3WUomIEUP4MneEA2DMr1FSSpft-FOAQ_YrGv7U-txUeiUW1xHMsQFlMWyXHr6Fm0CwKoviG9WAPVqqySVKoGp4EJRtGNGDDHQ_KYSme5CTeVqzkTneBaOI14xMnYaMi9_6LZfPQyBPKbX9JX57pugFqPwWPcFVXXQvCp4TI7PzWRw-EVVs_WKsVIQzArpa5ltVw27IBSsoA~~) [**» Full text PDF**](https://links.springernature.com/f/a/g6UER7aIMFiaxK7w87qU9A~~/AABE5hA~/XO-aPidHlrSVSxpZ02GlocGehoSc3kOGjlTVyKV1cE1cYZCUkUvFxm2JvzNuL_s2B_sHnPa0x_2U83WdVGSUQxe1QdKm5Q-hkVUiC-qphZnAQYWJuOAeiZ3i_38oUzXOmdZwujiKM2aCRAtZb_R2sIJ9Ad7-6rzNvPvo9aGa1iW62Xda7nabck5j-3iB5-Lxxrg3cGHY5V1cP2UZ-F-KxYMePqTbNGW7Fd4WFvjIDOfxQmmijWtW_i0DNRrwu2lHAe-NTDd_zYB-vrq9iC8J4q4lt1cxggKQI9NTQRxirABVDzepyQWvpLtgCgxf62Zy1cHFlNxVvPpbbxW8tnCWeA~~) |

 |

 |

 |

 |
|

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|

|  |  |  |  |
| --- | --- | --- | --- |
|

|  |  |  |
| --- | --- | --- |
|

|  |  |
| --- | --- |
|

|  |
| --- |
|    |

 |

 |

 |

 |

 |
|

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|

|  |  |
| --- | --- |
|

|  |
| --- |
| Review Article |

 |

 |

|  |  |
| --- | --- |
|

|  |
| --- |
|  |

 |

 |

 |

 |

 |
|

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|

|  |  |  |  |
| --- | --- | --- | --- |
|

|  |  |  |
| --- | --- | --- |
|

|  |
| --- |
| [Fundamental review on gas tungsten arc welding of magnesium alloys: challenges, innovations, and future perspectives](https://links.springernature.com/f/a/hxXFBh4-XyJlNFjX2910dQ~~/AABE5hA~/CQZ5fBr3-7fgyv8RjxCKgCEfiutL6F6WiRqmaY30dGj5lGAk2AxR-AMaqVuRE9OiLIgd2GL5m1vPrdLxzQ3pZYKvYQQH_S2gHGDLFCO4BZtgJrXHuxKz67rkCoDnK25xkAvfolQlk84xJe2xQfatpYGdmkYRCdXIrWm7b-3zFxvOdGXbuzd_dgkTqAObBvi85O8I8tl3RgHIKrm5o41perQBR0tZFo3Pylcv2MaiNghdiFr3O5PJT6oL8u7Et0chbCo1pKWIld0zjx3rYb0pEWD9QhEEs_qAlyibJ8SEI155EJQe7JLSLQ-KqwOO8qjgOxj9aK6pnHa-nr3Nlx9dfg~~) |
| Gaurav Singh, Ashok Kumar Dewangan, Mohammad Faseeulla Khan, Syed Quadir Moinuddin |

 |

 |

 |

 |

 |
|

|  |  |  |  |
| --- | --- | --- | --- |
|

|  |  |  |
| --- | --- | --- |
|

|  |  |
| --- | --- |
|

|  |
| --- |
| [**» Abstract**](https://links.springernature.com/f/a/hxXFBh4-XyJlNFjX2910dQ~~/AABE5hA~/CQZ5fBr3-7fgyv8RjxCKgCEfiutL6F6WiRqmaY30dGj5lGAk2AxR-AMaqVuRE9OiLIgd2GL5m1vPrdLxzQ3pZYKvYQQH_S2gHGDLFCO4BZtgJrXHuxKz67rkCoDnK25xkAvfolQlk84xJe2xQfatpYGdmkYRCdXIrWm7b-3zFxvOdGXbuzd_dgkTqAObBvi85O8I8tl3RgHIKrm5o41perQBR0tZFo3Pylcv2MaiNghdiFr3O5PJT6oL8u7Et0chbCo1pKWIld0zjx3rYb0pEWD9QhEEs_qAlyibJ8SEI155EJQe7JLSLQ-KqwOO8qjgOxj9aK6pnHa-nr3Nlx9dfg~~)    [**» Full text HTML**](https://links.springernature.com/f/a/hxXFBh4-XyJlNFjX2910dQ~~/AABE5hA~/CQZ5fBr3-7fgyv8RjxCKgCEfiutL6F6WiRqmaY30dGj5lGAk2AxR-AMaqVuRE9OiLIgd2GL5m1vPrdLxzQ3pZYKvYQQH_S2gHGDLFCO4BZtgJrXHuxKz67rkCoDnK25xkAvfolQlk84xJe2xQfatpYGdmkYRCdXIrWm7b-3zFxvOdGXbuzd_dgkTqAObBvi85O8I8tl3RgHIKrm5o41perQBR0tZFo3Pylcv2MaiNghdiFr3O5PJT6oL8u7Et0chbCo1pKWIld0zjx3rYb0pEWD9QhEEs_qAlyibJ8SEI155EJQe7JLSLQ-KqwOO8qjgOxj9aK6pnHa-nr3Nlx9dfg~~) [**» Full text PDF**](https://links.springernature.com/f/a/VWuxvh01R5jN2I6zJvAvuw~~/AABE5hA~/XO-aPidHlrSVSxpZ02GlocGehoSc3kOGjlTVyKV1cE1cYZCUkUvFxm2JvzNuL_s2B_sHnPa0x_2U83WdVGSUQyTTAPT5fWzCQtKQNaxxlMokLLXN1eLaF_-yVR5cBw-GWr6w5dX8kj4jiHCJvZFGa7CR1KeSq0QApPZVyHKXrOWuAeoNPChQYGAfXHyXThU060B3F6YT8Gguh-rMnj72ioQI8wKzI4s9DK8IEX_GJM8QX-Zw45TW5V1YDONEQJkwjP5JmM248ei2jWKGpIwyK8kxUoFjyfbi7hozS4DoFMDcDi9Kp2iIKmfQ0H8NjCQZ6P-hPUknPn985pvAIQ2kbw~~) |

 |

 |

 |

 |
|

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|

|  |  |  |  |
| --- | --- | --- | --- |
|

|  |  |  |
| --- | --- | --- |
|

|  |  |
| --- | --- |
|

|  |
| --- |
|    |

 |

 |

 |

 |

 |
|

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|

|  |  |
| --- | --- |
|

|  |
| --- |
| Research Paper |

 |

 |

|  |  |
| --- | --- |
|

|  |
| --- |
|  |

 |

 |

 |

 |

 |
|

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|

|  |  |  |  |
| --- | --- | --- | --- |
|

|  |  |  |
| --- | --- | --- |
|

|  |
| --- |
| [High-resolution thermal imaging for melt pool dynamics studies in TIG welding process](https://links.springernature.com/f/a/mjP87oj9quOhXVyPefMNtw~~/AABE5hA~/CQZ5fBr3-7fgyv8RjxCKgCEfiutL6F6WiRqmaY30dGj5lGAk2AxR-AMaqVuRE9OiLIgd2GL5m1vPrdLxzQ3pZYdRJP_w0Zf6RZBDhl1rYcp7ROfPilEirrrtRwo0zDarwUP4RfKsQowBGgNZU7zyi4VyfVEmTXZuaMgj_0ysb5ezuwMUlljCWutK0ASv5w4YS-BwzkXUAmsVVCl37glKj39Dd-a9kB4zUCzRCZovLsRTsEZ9sJzmLoayh3scSFJKR3l2IGA8foMv5ZIUpgdE8K-arT9ESrqe1UbJvKnJCUTEmvxfDI6PQeLbusps1-VRBEbk4Kz2mHp27uPtRT0igA~~) |
| Vinicius Lemes Jorge, Issam Bendaoud, Fabien Soulié, Cyril Bordreuil |

 |

 |

 |

 |

 |
|

|  |  |  |  |
| --- | --- | --- | --- |
|

|  |  |  |
| --- | --- | --- |
|

|  |  |
| --- | --- |
|

|  |
| --- |
| [**» Abstract**](https://links.springernature.com/f/a/mjP87oj9quOhXVyPefMNtw~~/AABE5hA~/CQZ5fBr3-7fgyv8RjxCKgCEfiutL6F6WiRqmaY30dGj5lGAk2AxR-AMaqVuRE9OiLIgd2GL5m1vPrdLxzQ3pZYdRJP_w0Zf6RZBDhl1rYcp7ROfPilEirrrtRwo0zDarwUP4RfKsQowBGgNZU7zyi4VyfVEmTXZuaMgj_0ysb5ezuwMUlljCWutK0ASv5w4YS-BwzkXUAmsVVCl37glKj39Dd-a9kB4zUCzRCZovLsRTsEZ9sJzmLoayh3scSFJKR3l2IGA8foMv5ZIUpgdE8K-arT9ESrqe1UbJvKnJCUTEmvxfDI6PQeLbusps1-VRBEbk4Kz2mHp27uPtRT0igA~~)    [**» Full text HTML**](https://links.springernature.com/f/a/mjP87oj9quOhXVyPefMNtw~~/AABE5hA~/CQZ5fBr3-7fgyv8RjxCKgCEfiutL6F6WiRqmaY30dGj5lGAk2AxR-AMaqVuRE9OiLIgd2GL5m1vPrdLxzQ3pZYdRJP_w0Zf6RZBDhl1rYcp7ROfPilEirrrtRwo0zDarwUP4RfKsQowBGgNZU7zyi4VyfVEmTXZuaMgj_0ysb5ezuwMUlljCWutK0ASv5w4YS-BwzkXUAmsVVCl37glKj39Dd-a9kB4zUCzRCZovLsRTsEZ9sJzmLoayh3scSFJKR3l2IGA8foMv5ZIUpgdE8K-arT9ESrqe1UbJvKnJCUTEmvxfDI6PQeLbusps1-VRBEbk4Kz2mHp27uPtRT0igA~~) [**» Full text PDF**](https://links.springernature.com/f/a/bpz9FyUXHjqMg1bORGU5gw~~/AABE5hA~/XO-aPidHlrSVSxpZ02GlocGehoSc3kOGjlTVyKV1cE1cYZCUkUvFxm2JvzNuL_s2B_sHnPa0x_2U83WdVGSUQ2foRCwHp-IwTgkqyjL9PbK5V2OTx9h7yg5-gXpzfsoLXkwF_bOE4iH7obqtnRj1GoMjnMqigQSZYfMOhs-D2R8zScKellk4ecHrYJ0XoavddflrTcyeFhIb76e8GHkbZmx3G49uIqi0DQoy2iirUmZkY1Nj7Tid7FZrdIdgb9v7iO3RLaBZNaxS3HGOr51Ucqb-bSN_R3nrCaNgJvWKaGbfBczM9TjhTU6zvG0zYON_RK029SlmMQKxrDX9O8f9tg~~) |

 |

 |

 |

 |
|

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|

|  |  |  |  |
| --- | --- | --- | --- |
|

|  |  |  |
| --- | --- | --- |
|

|  |  |
| --- | --- |
|

|  |
| --- |
|    |

 |

 |

 |

 |

 |
|

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|

|  |  |
| --- | --- |
|

|  |
| --- |
| Review Article |

 |

 |

|  |  |
| --- | --- |
|

|  |
| --- |
|  |

 |

 |

 |

 |

 |
|

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|

|  |  |  |  |
| --- | --- | --- | --- |
|

|  |  |  |
| --- | --- | --- |
|

|  |
| --- |
| [Research progress in underwater welding: techniques, materials, advancements, and challenges](https://links.springernature.com/f/a/6reWC5HgP-XqWBURpnNYFg~~/AABE5hA~/CQZ5fBr3-7fgyv8RjxCKgCEfiutL6F6WiRqmaY30dGj5lGAk2AxR-AMaqVuRE9OiLIgd2GL5m1vPrdLxzQ3pZenrpXQyLDstZQRPgUljFep5HG2KgAt8S34xXaqs-lOBamrZxacvUY4pTqB4clCuWL_Mz-SCTQkhwen_mnMbcN3Dj7Ipue9v5UoYcSENWIU934ykLZmTWP94F4c21DwXke4cQE8fXKmbGTuN8JH5Nxy5YkGpbTqRGDRJUnxY3JbIq8X_rmq7NTgX0gURb4wl7Ig7N02qeSHXN831aRfc_6M-A3I_e-EA4rR_rvwcANpLLHt3NBeTe96ZTmUrKokc_g~~) |
| Syed Quadir Moinuddin, Avanthika Chamarthi, Mohammad Faseeulla Khan, Akbar Niaz, Saad Arif, Muralimohan Cheepu, Ashok Kumar Dewangan, Suresh Goka |

 |

 |

 |

 |

 |
|

|  |  |  |  |
| --- | --- | --- | --- |
|

|  |  |  |
| --- | --- | --- |
|

|  |  |
| --- | --- |
|

|  |
| --- |
| [**» Abstract**](https://links.springernature.com/f/a/6reWC5HgP-XqWBURpnNYFg~~/AABE5hA~/CQZ5fBr3-7fgyv8RjxCKgCEfiutL6F6WiRqmaY30dGj5lGAk2AxR-AMaqVuRE9OiLIgd2GL5m1vPrdLxzQ3pZenrpXQyLDstZQRPgUljFep5HG2KgAt8S34xXaqs-lOBamrZxacvUY4pTqB4clCuWL_Mz-SCTQkhwen_mnMbcN3Dj7Ipue9v5UoYcSENWIU934ykLZmTWP94F4c21DwXke4cQE8fXKmbGTuN8JH5Nxy5YkGpbTqRGDRJUnxY3JbIq8X_rmq7NTgX0gURb4wl7Ig7N02qeSHXN831aRfc_6M-A3I_e-EA4rR_rvwcANpLLHt3NBeTe96ZTmUrKokc_g~~)    [**» Full text HTML**](https://links.springernature.com/f/a/6reWC5HgP-XqWBURpnNYFg~~/AABE5hA~/CQZ5fBr3-7fgyv8RjxCKgCEfiutL6F6WiRqmaY30dGj5lGAk2AxR-AMaqVuRE9OiLIgd2GL5m1vPrdLxzQ3pZenrpXQyLDstZQRPgUljFep5HG2KgAt8S34xXaqs-lOBamrZxacvUY4pTqB4clCuWL_Mz-SCTQkhwen_mnMbcN3Dj7Ipue9v5UoYcSENWIU934ykLZmTWP94F4c21DwXke4cQE8fXKmbGTuN8JH5Nxy5YkGpbTqRGDRJUnxY3JbIq8X_rmq7NTgX0gURb4wl7Ig7N02qeSHXN831aRfc_6M-A3I_e-EA4rR_rvwcANpLLHt3NBeTe96ZTmUrKokc_g~~) [**» Full text PDF**](https://links.springernature.com/f/a/4uFTO0sduzf26l4nQoaZEg~~/AABE5hA~/XO-aPidHlrSVSxpZ02GlocGehoSc3kOGjlTVyKV1cE1cYZCUkUvFxm2JvzNuL_s2B_sHnPa0x_2U83WdVGSUQ7KpJ2V6SYOgzM1wjXKt66Ied8dnTSxp_HhPc_HlitoP4Jqqlzh5aArbnqVnuyXq1hK469YtHEcq9LmHA_EYv6D7B-FFZyuUrS8JK0QkslYY2a57AyUj9_W_oEVoeSYEwznZowNFS7LofumDS7SN3s21gyrlXynLRxjdkUxMzOgr4cNYfZdfD8D_NbqGcRWJyXDGMH8GNf53ylb_ZMLJKz0E6unohbVdYkmxefY4CR82gtole_vz7EihZkH-yqPBmA~~) |

 |

 |

 |

 |
|

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|

|  |  |  |  |
| --- | --- | --- | --- |
|

|  |  |  |
| --- | --- | --- |
|

|  |  |
| --- | --- |
|

|  |
| --- |
|    |

 |

 |

 |

 |

 |
|

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|

|  |  |
| --- | --- |
|

|  |
| --- |
| Research Paper |

 |

 |

|  |  |
| --- | --- |
|

|  |
| --- |
|  |

 |

 |

 |

 |

 |
|

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|

|  |  |  |  |
| --- | --- | --- | --- |
|

|  |  |  |
| --- | --- | --- |
|

|  |
| --- |
| [Regression-driven modeling and optimization of ultrasonic-assisted activated flux tungsten inert gas welding on AISI 316L](https://links.springernature.com/f/a/M6jE9gtbH48p_MDhelAqfA~~/AABE5hA~/CQZ5fBr3-7fgyv8RjxCKgCEfiutL6F6WiRqmaY30dGj5lGAk2AxR-AMaqVuRE9OiLIgd2GL5m1vPrdLxzQ3pZeRyHUEOugtFnssJjSBoIg7U7vGMWzyMH4cxZbqaS__ie5ZWF7uKnduiEPDi-yJK2ZCRmTX9O_Z9Wosbf2tuotIZCDXRbr5gR9MwWtMna3hNFuKHfyHIaFz61eCHk7vB0aNLQxd-ExYNann3TfvaqyQF03L3lEB-7NzeQ5aOmmqWjubC09yNXZDU1lWwKXti-OtmGlWh54zYsEjyFme0uXC2g9YMxxoBuy5IdhBEGY71pO6RJIIDXUXFO_zXMz92Pw~~) |
| Mahdi Mazloom Farsibaf, Mohammad Naser Sadraee Far, Ahmad Nourani, Farhad Kolahan, Sadegh Elhami |

 |

 |

 |

 |

 |
|

|  |  |  |  |
| --- | --- | --- | --- |
|

|  |  |  |
| --- | --- | --- |
|

|  |  |
| --- | --- |
|

|  |
| --- |
| [**» Abstract**](https://links.springernature.com/f/a/M6jE9gtbH48p_MDhelAqfA~~/AABE5hA~/CQZ5fBr3-7fgyv8RjxCKgCEfiutL6F6WiRqmaY30dGj5lGAk2AxR-AMaqVuRE9OiLIgd2GL5m1vPrdLxzQ3pZeRyHUEOugtFnssJjSBoIg7U7vGMWzyMH4cxZbqaS__ie5ZWF7uKnduiEPDi-yJK2ZCRmTX9O_Z9Wosbf2tuotIZCDXRbr5gR9MwWtMna3hNFuKHfyHIaFz61eCHk7vB0aNLQxd-ExYNann3TfvaqyQF03L3lEB-7NzeQ5aOmmqWjubC09yNXZDU1lWwKXti-OtmGlWh54zYsEjyFme0uXC2g9YMxxoBuy5IdhBEGY71pO6RJIIDXUXFO_zXMz92Pw~~)    [**» Full text HTML**](https://links.springernature.com/f/a/M6jE9gtbH48p_MDhelAqfA~~/AABE5hA~/CQZ5fBr3-7fgyv8RjxCKgCEfiutL6F6WiRqmaY30dGj5lGAk2AxR-AMaqVuRE9OiLIgd2GL5m1vPrdLxzQ3pZeRyHUEOugtFnssJjSBoIg7U7vGMWzyMH4cxZbqaS__ie5ZWF7uKnduiEPDi-yJK2ZCRmTX9O_Z9Wosbf2tuotIZCDXRbr5gR9MwWtMna3hNFuKHfyHIaFz61eCHk7vB0aNLQxd-ExYNann3TfvaqyQF03L3lEB-7NzeQ5aOmmqWjubC09yNXZDU1lWwKXti-OtmGlWh54zYsEjyFme0uXC2g9YMxxoBuy5IdhBEGY71pO6RJIIDXUXFO_zXMz92Pw~~) [**» Full text PDF**](https://links.springernature.com/f/a/dN91iO88uZaWXNwJ5BC5GQ~~/AABE5hA~/XO-aPidHlrSVSxpZ02GlocGehoSc3kOGjlTVyKV1cE1cYZCUkUvFxm2JvzNuL_s2B_sHnPa0x_2U83WdVGSUQ2zkiP9rnapJF-ctpnHzl5arAYvQm9WqR0C8PGZ8vis22GoJ8TYYJAu-dlb3mhwUzOHef4xICDHuiWsaiAmPgSUdmDTuFj6oFjpHItMCPlYV3RtOQaNXBPbQY7vTG6ThYEx_ggeLE51MjQ5NCYTp9txV3b2s6rsAbtFPmX7IhaDYzUspRtUkf_rKf41Gnsr-7XMDioSyxj-zYGdmNt5D8_TslmuDCFGea5BF8AwvqOVhJIUdeIk2NVg_UX0QAk3hug~~) |

 |

 |

 |

 |
|

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|

|  |  |  |  |
| --- | --- | --- | --- |
|

|  |  |  |
| --- | --- | --- |
|

|  |  |
| --- | --- |
|

|  |
| --- |
|    |

 |

 |

 |

 |

 |
|

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|

|  |  |
| --- | --- |
|

|  |
| --- |
| Research Paper |

 |

 |

|  |  |
| --- | --- |
|

|  |
| --- |
|  |

 |

 |

 |

 |

 |
|

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|

|  |  |  |  |
| --- | --- | --- | --- |
|

|  |  |  |
| --- | --- | --- |
|

|  |
| --- |
| [Metal transfer and microstructures in aluminum welding using cold wire pulsed GMAW (CW-P-GMAW)](https://links.springernature.com/f/a/mGHPNlc6lycz1Q5bter90Q~~/AABE5hA~/CQZ5fBr3-7fgyv8RjxCKgCEfiutL6F6WiRqmaY30dGj5lGAk2AxR-AMaqVuRE9OiLIgd2GL5m1vPrdLxzQ3pZYxRZge5JPubTc2sVnSqzOAOeKX7FxhQhc6T6m9oY8VEfas66_ioEaO9o8hEGUEFX1aTG3v3pVAZ6RkJKrLjHLJ6jod3CH-q2GfnL3rhD8jqlMcMBEV1YZy_oAAaYs1gJP8_4piIdyZYCGv6w9imBZyax-ttFPpqJG5Po_mbsjpCarNCuB7Glc6GCwlVj7STXFXvtW1PSxa4PklyoPgSybV9FgaCUd603nmrFG-NSgrBmu7Ea9aKVS4SXN0SqZc2nQ~~) |
| R. A. Ribeiro, P. D. C. Assunção, V. Sengupta, R. Khan, A. P. Gerlich |

 |

 |

 |

 |

 |
|

|  |  |  |  |
| --- | --- | --- | --- |
|

|  |  |  |
| --- | --- | --- |
|

|  |  |
| --- | --- |
|

|  |
| --- |
| [**» Abstract**](https://links.springernature.com/f/a/mGHPNlc6lycz1Q5bter90Q~~/AABE5hA~/CQZ5fBr3-7fgyv8RjxCKgCEfiutL6F6WiRqmaY30dGj5lGAk2AxR-AMaqVuRE9OiLIgd2GL5m1vPrdLxzQ3pZYxRZge5JPubTc2sVnSqzOAOeKX7FxhQhc6T6m9oY8VEfas66_ioEaO9o8hEGUEFX1aTG3v3pVAZ6RkJKrLjHLJ6jod3CH-q2GfnL3rhD8jqlMcMBEV1YZy_oAAaYs1gJP8_4piIdyZYCGv6w9imBZyax-ttFPpqJG5Po_mbsjpCarNCuB7Glc6GCwlVj7STXFXvtW1PSxa4PklyoPgSybV9FgaCUd603nmrFG-NSgrBmu7Ea9aKVS4SXN0SqZc2nQ~~)    [**» Full text HTML**](https://links.springernature.com/f/a/mGHPNlc6lycz1Q5bter90Q~~/AABE5hA~/CQZ5fBr3-7fgyv8RjxCKgCEfiutL6F6WiRqmaY30dGj5lGAk2AxR-AMaqVuRE9OiLIgd2GL5m1vPrdLxzQ3pZYxRZge5JPubTc2sVnSqzOAOeKX7FxhQhc6T6m9oY8VEfas66_ioEaO9o8hEGUEFX1aTG3v3pVAZ6RkJKrLjHLJ6jod3CH-q2GfnL3rhD8jqlMcMBEV1YZy_oAAaYs1gJP8_4piIdyZYCGv6w9imBZyax-ttFPpqJG5Po_mbsjpCarNCuB7Glc6GCwlVj7STXFXvtW1PSxa4PklyoPgSybV9FgaCUd603nmrFG-NSgrBmu7Ea9aKVS4SXN0SqZc2nQ~~) [**» Full text PDF**](https://links.springernature.com/f/a/En5_SzaPhnLB0l7jtwnxmA~~/AABE5hA~/XO-aPidHlrSVSxpZ02GlocGehoSc3kOGjlTVyKV1cE1cYZCUkUvFxm2JvzNuL_s2B_sHnPa0x_2U83WdVGSUQzCBFokLYB7TEyXjhwUwNA-4t-Kcf74byQGMq8V6MZJVna-v7XLvaK3GID0OZAOo3SGVgfoqkIBgOrDjWHInp8Eq4Z1wuIBbhvl8PNaQWNyrn4vFO0F_8bJpYUdjT3kNuxEYPKXHN96sGrBrMaZvyzDEgHwtrivyoW29VCCXYkOOnj94Vlh_MbfvnXIU3ICkY87ZCbMs4kHEd4y9RnKGCghIHQ7v2lO1Sj0tMmJQmUtYXUVEsgkfS9PKvGDhhOFO8w~~) |

 |

 |

 |

 |
|

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|

|  |  |  |  |
| --- | --- | --- | --- |
|

|  |  |  |
| --- | --- | --- |
|

|  |  |
| --- | --- |
|

|  |
| --- |
|    |

 |

 |

 |

 |

 |
|

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|

|  |  |
| --- | --- |
|

|  |
| --- |
| Research Paper |

 |

 |

|  |  |
| --- | --- |
|

|  |
| --- |
|  |

 |

 |

 |

 |

 |
|

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|

|  |  |  |  |
| --- | --- | --- | --- |
|

|  |  |  |
| --- | --- | --- |
|

|  |
| --- |
| [Design and modeling of pipeline welding robot based on Pieper criterion and construction of integrated intelligent welding system](https://links.springernature.com/f/a/RH2j573e-VZW1mCKSwtsGw~~/AABE5hA~/CQZ5fBr3-7fgyv8RjxCKgCEfiutL6F6WiRqmaY30dGj5lGAk2AxR-AMaqVuRE9OiLIgd2GL5m1vPrdLxzQ3pZVrN0RrMv5oi4Pas13Ar5fszUuqQU1_5X8pfoBC8OuJK-_TcTVmc9EsQu-ukoUVqrrJNY8clI62ndMQ9o9yiHE4igFYreGG7qrORzu_Ca-kpcJiJK2i16wT-TT_KihMOhESdxNsuqJaGcZZfQljtnGoevSsTH1ncooyFH2caB6_0tqliYguUOwZJK5eTB3U62o2CAlXKYgsz1cUh7oO8mP2-0yn_0UwxYGQ1pzwb6wgiBHpnjJZxoaLMk4v9tCTAfQ~~) |
| Chuanhui Zhu, Zihao Wang, Zhiming Zhu, Jichang Guo |

 |

 |

 |

 |

 |
|

|  |  |  |  |
| --- | --- | --- | --- |
|

|  |  |  |
| --- | --- | --- |
|

|  |  |
| --- | --- |
|

|  |
| --- |
| [**» Abstract**](https://links.springernature.com/f/a/RH2j573e-VZW1mCKSwtsGw~~/AABE5hA~/CQZ5fBr3-7fgyv8RjxCKgCEfiutL6F6WiRqmaY30dGj5lGAk2AxR-AMaqVuRE9OiLIgd2GL5m1vPrdLxzQ3pZVrN0RrMv5oi4Pas13Ar5fszUuqQU1_5X8pfoBC8OuJK-_TcTVmc9EsQu-ukoUVqrrJNY8clI62ndMQ9o9yiHE4igFYreGG7qrORzu_Ca-kpcJiJK2i16wT-TT_KihMOhESdxNsuqJaGcZZfQljtnGoevSsTH1ncooyFH2caB6_0tqliYguUOwZJK5eTB3U62o2CAlXKYgsz1cUh7oO8mP2-0yn_0UwxYGQ1pzwb6wgiBHpnjJZxoaLMk4v9tCTAfQ~~)    [**» Full text HTML**](https://links.springernature.com/f/a/RH2j573e-VZW1mCKSwtsGw~~/AABE5hA~/CQZ5fBr3-7fgyv8RjxCKgCEfiutL6F6WiRqmaY30dGj5lGAk2AxR-AMaqVuRE9OiLIgd2GL5m1vPrdLxzQ3pZVrN0RrMv5oi4Pas13Ar5fszUuqQU1_5X8pfoBC8OuJK-_TcTVmc9EsQu-ukoUVqrrJNY8clI62ndMQ9o9yiHE4igFYreGG7qrORzu_Ca-kpcJiJK2i16wT-TT_KihMOhESdxNsuqJaGcZZfQljtnGoevSsTH1ncooyFH2caB6_0tqliYguUOwZJK5eTB3U62o2CAlXKYgsz1cUh7oO8mP2-0yn_0UwxYGQ1pzwb6wgiBHpnjJZxoaLMk4v9tCTAfQ~~) [**» Full text PDF**](https://links.springernature.com/f/a/CQKLEVd-R79yC3z-jRaNZQ~~/AABE5hA~/XO-aPidHlrSVSxpZ02GlocGehoSc3kOGjlTVyKV1cE1cYZCUkUvFxm2JvzNuL_s2B_sHnPa0x_2U83WdVGSUQ_WAU07aLPk681snfKJQ8PGlmGE2-URWm9DrXC0oUgVwDQV6xzVhd6XOovmkMA7KuXDc6BinBFulrQg0axkQzB6mzma8je4HJXWNAik3AG4tLcOuBrhY3eMsuU6CP3Ea1nqa6G-VcWiizgnXsFwPT2KBz52T0mDhDTk1FhvKd3t65lfcB_XX77f72yq5trD3A2WadqKjPkr_hbUEJBHsH-tsEcTTCqlOkxjXVKw9WdnYQmNxSJsEnDG4xspobV_2Ng~~) |

 |

 |

 |

 |
|

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|

|  |  |  |  |
| --- | --- | --- | --- |
|

|  |  |  |
| --- | --- | --- |
|

|  |  |
| --- | --- |
|

|  |
| --- |
|    |

 |

 |

 |

 |

 |
|

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|

|  |  |
| --- | --- |
|

|  |
| --- |
| Research Paper |

 |

 |

|  |  |
| --- | --- |
|

|  |
| --- |
| Open Access |

 |

 |

 |

 |

 |
|

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|

|  |  |  |  |
| --- | --- | --- | --- |
|

|  |  |  |
| --- | --- | --- |
|

|  |
| --- |
| [The effect of adhesive and adherend compliance on the failure of 3D-printed parts](https://links.springernature.com/f/a/Mq-L2Pvq1lTLBan7Un_AVA~~/AABE5hA~/CQZ5fBr3-7fgyv8RjxCKgCEfiutL6F6WiRqmaY30dGj5lGAk2AxR-AMaqVuRE9OiLIgd2GL5m1vPrdLxzQ3pZQRNZDoGyJO9AxDuZEHFqZrThGGUd-X8ATnEKpaweDoIeCbWFFbsUieJZ3_66wZr2lVMK0J7haWq_xvhN5SjlJFlGqHESuHQvPvzVcwz7Us2LcVAkcgF6afKktwPFIw7ny7Xup7Q144lvItGfIzuUlpsaefrb0Ic37dLpdfQ40O8I9bKb39CfCTaH2E18DXYN-rz6HdcwX87HmnhwkH-1id7Y6B27rDVqHHeieqGG8_r5SAOpNauQXbymNSDjrKd5w~~) |
| Özkan Öz, Fatih Huzeyfe Öztürk |

 |

 |

 |

 |

 |
|

|  |  |  |  |
| --- | --- | --- | --- |
|

|  |  |  |
| --- | --- | --- |
|

|  |  |
| --- | --- |
|

|  |
| --- |
| [**» Abstract**](https://links.springernature.com/f/a/Mq-L2Pvq1lTLBan7Un_AVA~~/AABE5hA~/CQZ5fBr3-7fgyv8RjxCKgCEfiutL6F6WiRqmaY30dGj5lGAk2AxR-AMaqVuRE9OiLIgd2GL5m1vPrdLxzQ3pZQRNZDoGyJO9AxDuZEHFqZrThGGUd-X8ATnEKpaweDoIeCbWFFbsUieJZ3_66wZr2lVMK0J7haWq_xvhN5SjlJFlGqHESuHQvPvzVcwz7Us2LcVAkcgF6afKktwPFIw7ny7Xup7Q144lvItGfIzuUlpsaefrb0Ic37dLpdfQ40O8I9bKb39CfCTaH2E18DXYN-rz6HdcwX87HmnhwkH-1id7Y6B27rDVqHHeieqGG8_r5SAOpNauQXbymNSDjrKd5w~~)    [**» Full text HTML**](https://links.springernature.com/f/a/Mq-L2Pvq1lTLBan7Un_AVA~~/AABE5hA~/CQZ5fBr3-7fgyv8RjxCKgCEfiutL6F6WiRqmaY30dGj5lGAk2AxR-AMaqVuRE9OiLIgd2GL5m1vPrdLxzQ3pZQRNZDoGyJO9AxDuZEHFqZrThGGUd-X8ATnEKpaweDoIeCbWFFbsUieJZ3_66wZr2lVMK0J7haWq_xvhN5SjlJFlGqHESuHQvPvzVcwz7Us2LcVAkcgF6afKktwPFIw7ny7Xup7Q144lvItGfIzuUlpsaefrb0Ic37dLpdfQ40O8I9bKb39CfCTaH2E18DXYN-rz6HdcwX87HmnhwkH-1id7Y6B27rDVqHHeieqGG8_r5SAOpNauQXbymNSDjrKd5w~~) [**» Full text PDF**](https://links.springernature.com/f/a/MLzkC6TD7JNoj3bm4Z3E4A~~/AABE5hA~/XO-aPidHlrSVSxpZ02GlocGehoSc3kOGjlTVyKV1cE1cYZCUkUvFxm2JvzNuL_s2B_sHnPa0x_2U83WdVGSUQ2KxUwA0EMr8IBOSAy7LMchNJ9vMpJ-GqdJyG4DSrWriRpWAZph9bWvliHz1EgQG0Qnnjt5wPu6Rrjg8L8PZobrI8y8n7WjICJOwSsfvoW8dFJIUE180Ey5eKtAzl5jN4SRxdSGcNcP_5SF812JGYtQbUL6hjoEwewzroNlk-La0KOjrAOoN3laVOLtWXtUlpwov_aPe4f-yCWxG4JEl7aEijoM4YwAd-SwiE7euC5qzZJCHqBSGwessCd-gFn4byg~~) |

 |

 |

 |

 |