



metals



Special Issue Reprint

Science, Characterization and Technology of Joining and Welding

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As the Guest Editor of this Special Issue entitled "Science, Characterization, and Technology of Joining and Welding" of Metals, I am pleased to have this book published by MDPI. Joining, including welding, soldering, brazing, and assembly, is an essential requirement in manufacturing processes and is classified as a secondary manufacturing process. This Special Issue of Metals includes technical and review papers on, but not limited to, different aspects of joining and welding, including welding technologies (i.e., fusion-based welding and solid-state welding), characterization, metallurgy and materials science, quality control, and design and numerical simulation. This Special Issue also includes the joining of different materials, including metal and non-metals (polymers and composites), including 17 peer-reviewed papers from several researchers all around the globe (China, Germany, Brazil, South Korea, Slovakia, USA, Taiwan, Canada, and India). As of this date (April 2020), the papers in this Special Issue have been cited 47 times by other researchers, which I think is an eminent number and shows the high quality of the published papers in this Issue. This Special Issue includes a large diversity of various subjects in the field of joining: laser welding, friction stir welding, diffusion bonding, multipass welding, rotary friction-welding, friction bit joining, adhesive bonding, weldbonding, simulation and experimentation, metal/FRP joints, welding simulation, plasma-TIG coupled arc welding, liquation cracking, soldering, resin bonding, microstructural characteristics, brazing, and friction stir butt and scarf welding. I would like to sincerely thank all the researchers who contributed to this Special Issue for their high-quality research. I also would like to acknowledge Mr. Toliver Guo, Senior Assistant Editor at MDPI, who continuously and tirelessly contributed toward this Special Issue by with inviting the authors and the follow ups. I think this Special Issue will knowledge and understanding in the field of joining and assembly. I would like this book to my wife, Mehrmoosh, for her continued support and encouragement.



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