Special Issue Reprint

Laser Cladding Coatings

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The aim of this Reprint is to immerse the reader in the latest laser cladding approaches employed in the surface field. The content includes the use of AI to optimize laser cladding process parameters, the development of various laser cladding materials (high-entropy alloys, nickel-based alloys, iron-based alloys, and titanium alloys), and the various properties of laser cladding coatings. We aim to unravel the potential and promise of these cutting-edge technologies. In this Reprint, leading experts in the field share their insights, research findings, and visions for the future. Together, we embark on a journey to unlock the full potential of laser cladding technology, striving to forge sustainable industrial solutions that balance humanity's growing demand for high-performance materials with our duty to protect the integrity of our planetary ecosystems. By extending the lifespan of critical components, reducing raw material consumption, and minimizing waste, we pave the way toward a greener, more efficient future—where industry thrives and nature is preserved in harmony with human progress.