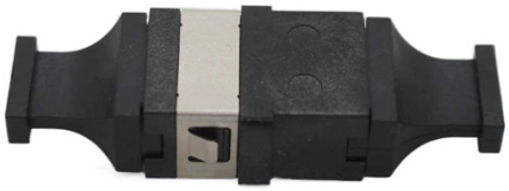
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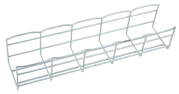
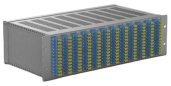
Laser Diode Melting



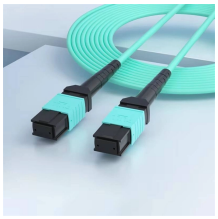


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Laser Diode Melting

	The essence of this research involves exploring the interactions between multiple diode lasers and powder materials within the DAM process. It focuses on forming single tracks and two-dimensional ...
	Diode Area Melting (DAM) is an alternative to traditional LPBF using multiple low-power (~ 3.5 W) short-wavelength fiber-coupled diode lasers to melt feedstock material.
	Laser Diode Tutorial The purpose of this laser diode tutorial is to provide the information necessary to create a long lifetime, stable laser diode system. Much of what will be discussed will be in general ...
	To overcome these challenges, a new system was developed which can accommodate multiple short-wavelength diode lasers (3-5W per laser) to melt the metal powder to achieve dense parts as SLM ...
	manufacturing approach to create complex structures with good mechanical properties and surface quality via melting metal powder with laser energy . Diode Area Mel ing (DAM) is a novel additive ...

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Laser-based selective laser melting (SLM) and electron-based electron beam melting (EBM) AM systems are increasingly being used in high value sectors to directly manufacture metallic end-use ...



This study introduces a novel in-situ Dynamic Laser Area Heating (DLAH) method, enabling spatially controlled surface heating up to 400 °C. The system uses a defocused 140 W, 915 ...



This paper presents an alternative to traditional laser powder bed fusion (LPBF), using an efficient, highly scalable multi-laser additive manufacturing methodology known as Diode Area ...



This study investigates the use of Diode Area Melting (DAM) to process 316L stainless steel (SS316L), an alternative to Laser Powder Bed Fusion (LPBF), utilising independently ...



This work details the development of a new additive manufacturing process known as Diode Area Melting (DAM). This process utilises customised architectural arrays of low power laser ...



Selective Laser Melting (SLM) is additive manufacturing (AM) technology aimed at melting and fusing metal powders using high power density ...

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	Selective Laser Melting (SLM) is additive manufacturing (AM) technology aimed at melting and fusing metal powders using high power density lasers to produce precision functional parts.

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