

论文

激光熔覆巴基管/球墨铸铁的研究

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摘要: 本文以巴基管为涂层,采用激光熔覆并辅以后续热处理的方法,对珠光体球墨铸铁进行改性处理,所得样品的表面硬度达HRC65.观察电镜(SEM)观察表明,样品的组织主要为马氏体及网状碳化物.同时,产生了具有规则几何形状的晶体,它的形成与马氏体的转变有关.

关键词: 巴基管 球墨铸铁 激光熔覆

A STUDY OF LASER CLADDING BUCKYTUBES/DUCTILE IRON

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Abstract: Laser melting and subsequent heat-treatment have been used to modify the pearlite ductile iron coated with Buckytubes. The hardness of the samples can reach HRC65. Studies through SEM indicated that the main structures are martensite and net carbide. Meanwhile, the number of nodular graphite decreases obviously. Circular structures composed of martensite and carbide are found around nodular graphite. A new phase with regular shape has been observed. The new phase is devoid of Fe, Mn, Cr, Ni, Cu and its formation relates with the martensitic transformation.

Keywords: buckytube ductile iron laser cladding

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