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整体式空腔Cu靶的化学镀制备工艺

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摘要 对整体式空腔 Cu 靶的化学镀制备工艺和靶表面抗腐蚀处理进行了研究。选用有机玻璃(PMMA)作芯轴,对芯轴表面活化处理,在芯轴表面化学镀 Cu,再用苯骈三氮唑(C₆H₅N₃)溶液钝化处理Cu靶表面,溶蚀芯轴,最终获得整体式空腔 Cu靶。该法工艺简单,制备费用较低,对惯性约束聚变研究所需其它金属或合金空腔靶的制备具有较高的参考价值。

关键词 [惯性约束聚变](#) [Cu靶](#) [化学镀](#) [表面钝化](#)

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Electroless Plating Technology of Integral Hohlräum Cu Target

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Abstract The electroless plating method of making integral hohlraum Cu target and corrosion-resistant technology of target's surface were researched. The actual process was as follows, choosing plexiglass(PMMA) as arbor, taking cationic activation and electroless plating Cu on the arbor surface, taking arbor surface passivation and chemical etching by C₆H₅N₃ solution. The technology is easy to realize and its cost is lower, so it is of great reference value for fabricating other integral hohlraum metal or alloy targets used for inertial confinement fusion study.

Key words [inertial confinement fusion](#) [Cu target](#) [electroless plating](#) [surface passivation](#)

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