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## 激光制导武器锁定水下目标时的信号衰减分析(PDF)

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Title: The Analysis of Signal Attenuation for Laser Homing Guidance Weapon Locking on Underwater Target

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关键词: [激光制导武器](#); [吸收系数](#); [激光波长](#); [信号衰减](#)

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摘要: 针对激光制导武器,从理论与实验两个方面分析了海水吸收系数对激光制导武器锁定水下目标时的信号衰减的影响。应用激光输入、接收信号的偏移量分析方法,分解不同波长段的激光的吸收系数,进行激光水下吸收系数的仿真计算,结果表明,波长在400~600nm波段的激光其水下吸收系数较大,该计算结果可为该类武器的设计与鉴定试验提供帮助。

Abstract: Focused on laser homing guidance weapon, on the basis of theory and experiment, the influence of signal attenuation by seawater absorption coefficient of laser guidance weapon locking on underwater target was analyzed. The method of offset analysis was used to input laser and receive signal. The absorption coefficient was resolved at different wavelength. Laser underwater absorption coefficient was simulated. The results show that, laser underwater absorption coefficient is larger when laser wavelength is in the band of 400nm to 600nm. The calculation results are useful and helpful for weapon design and appraisal test.

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