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水下滑翔机的研究现状与面临的挑战

Current Research and Future Challenges of Underwater Glider

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中文关键词: 水下滑翔机 人水下航行器 低功耗

英文关键词: Underwater Glider(UWG) Unmanned Underwater Vehicle(UUV) low power consumption

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中文摘要:

随着海洋科学研究的加深，水下滑翔机（Underwater Glider，UWG）做为一种新型的人水下航行器（Unmanned Underwater Vehicle，UUV）在经济、军事方面的价值逐渐凸显。文章首先介绍了水下滑翔机的研究意义以及分类情况，对水下滑翔机的研究现状以及国内外取得的具有代表性的成果进行了概括调研。然后对水下滑翔机的发展进行了分析，最后对低功耗水下滑翔机未来发展面临的导航问题、能源问题、控制问题以及通讯问题进行了讨论，提出了水下滑翔机技术的发展方向建议。

英文摘要:

With the deepening of marine scientific research , Underwater Glider(UWG) as a new Unmanned Underwater Vehicle (UUV) highlights its important value gradually in the economic and military application. This paper describes the study of UWG’ s and classification, Base on the investigation of current progress on UWG and representative of the results obtained are surveyed at home and broad. Then UWG’ s development are the paper gives the trend of UUV. Finally, the challenges faces in the developing of low-power UWG, such as navigation and control, energy saving, communication are discussed. At the same time, some suggestions about technology and development of UWG are proposed.

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