

Accepted Manuscript

Title: Continuous High-performance Drive of Rotary Travelling-wave Ultrasonic Motor with Water Cooling

Author: Wenchu Ou Ming Yang Fan Meng Zihao Xu Xiaoqi Zhuang Shiyang Li



PII: S0924-4247(14)00541-X
DOI: <http://dx.doi.org/doi:10.1016/j.sna.2014.12.019>
Reference: SNA 9002

To appear in: *Sensors and Actuators A*

Received date: 17-10-2014
Revised date: 14-12-2014
Accepted date: 15-12-2014

Please cite this article as: W. Ou, M. Yang, F. Meng, Z. Xu, X. Zhuang, S. Li, Continuous High-performance Drive of Rotary Travelling-wave Ultrasonic Motor with Water Cooling, *Sensors and Actuators: A Physical* (2014), <http://dx.doi.org/10.1016/j.sna.2014.12.019>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Highlights

- The key novelty relates to the integration of water cooling to rotary travelling-wave ultrasonic motor (RTUSM), hence opening up the potential use of RTUSM to the continuous motion.
- The feasibility of the water cooling was investigated by the analyses of temperature rise in RTUSM and the temperature influences on the characteristics of RTUSM.
- With the embedded water cooling, the motor has worked continuously for 48 h with an output power of 3.3 W and a temperature of 22 °C.

Accepted Manuscript

Download English Version:

<https://daneshyari.com/en/article/7136395>

Download Persian Version:

<https://daneshyari.com/article/7136395>

[Daneshyari.com](https://daneshyari.com)