

Dr. Scott Wade

Research Fellow



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Current Research

Co-managing a research project in the CRC for Integrated Engineering Asset Management (www.cieam.com) on the industrial application of corrosion sensors. This project is investigating the development/deployment of sensors, models and software tools to provide an integrated corrosion management system for industry.

Research Interests

Corrosion, optical fibre sensors, electrical resistance sensors, corrosion modelling, fibre Bragg gratings.

Professional Affiliations

Australian Institute of Physics (www.aip.org.au)
Australian Optical Society (aos.physics.mq.edu.au)

Selected Publications

- Rollinson C M, Dragomir N M, Baxter G W and Collins S F, Wade S A and Roberts A, 2005. "Reflections near 1030 nm from 1540 nm fibre Bragg gratings: evidence of a complex refractive index structure", *Opt. Commun.* **256**, 310-318.
- Trpkovski S, Kitcher D J, Baxter G W, Collins S F and Wade S A 2005. "High-temperature-resistant chemical composition Bragg gratings in Er³⁺ doped optical fiber", *Opt. Lett.* **30**, 607-609.
- Trpkovski S, Wade S A, Baxter G W and Collins S F, 2005. "Er³⁺:Yb³⁺ doped fibre with embedded FBG for simultaneous measurement of temperature and longitudinal strain", *Meas. Science Technol.* **16**, 488-496.
- Wade S A, Grattan K T V, McKinley B, Boswell L F and D'Mello C, 2004. "Incorporation of fibre optic temperature and strain sensors in concrete specimens: testing and evaluation", *IEEE Sensors* **4**, 127-134.
- Wade S A, Collins S F and Baxter G W, 2003. "The fluorescence intensity ratio technique for optical fiber temperature sensing", *J. Appl. Phys.* **94**, 4743-4756.
- Dragomir N M, Rollinson C, Wade S A, Stevenson A J, Collins S F, Baxter G W, Farrell P M. and Roberts A, 2003. "Nondestructive imaging of a Type I optical fiber Bragg grating", *Opt. Lett.* **28**, 789-791.
- Wade S A, Collins S F, Baxter G W and Monnom G, 2001. "Effect of strain on temperature measurements using the fluorescence intensity ratio technique (with Nd³⁺ and Yb³⁺-doped silica fibers)", *Rev. Sci. Instrum.* **72**, 3180-3185.
- Wade S A, Forsyth D I, Grattan K T V and Guofu Q, 2001. "Fiber optic sensor for dual measurement of temperature and strain using a combined fluorescence lifetime decay and fiber Bragg grating technique", *Rev. Sci. Instrum.* **72**, 3186-3190.
- Wade S A, Collins S F, Grattan K T V and Baxter G W, 2000. "Strain-independent temperature measurement by use of a fluorescence intensity ratio technique in optical fiber". *Appl. Opt.* **39**, 3050-3052.
- Collins S F, Baxter G W, Wade S A, Sun T, Zhang Z Y, Grattan K T V and Palmer A W, 1998. "Comparison of fluorescence-based temperature sensor schemes: Theoretical analysis and experimental validation". *J. App. Phys.* **84**, 4649-4654.