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Papers by the author related to this thesis:

Chapter 1

Donor state enabling Er-related luminescence in silicon: Direct identification and resonant excitation

I. Izeddin, M. A. J. Klik, N. Q. Vinh, M. S. Bresler, and T. Gregorkiewicz
Physical Review Letters **99**, 077401 (2007)

Er-doped electro-optical memory element for 1.5 μm silicon photonics

T. Gregorkiewicz, B. A. Andreev, M. Forcales, I. Izeddin, W. Jantsch, Z. F. Krasil'nik, D. I. Kryzhkov, and J. M. Zavada
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Chapter 2

Nanosecond Dynamics of the Near-Infrared Photoluminescence of Er-Doped SiO₂ Sensitized with Si Nanocrystals

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Chapter 3

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MRS Symposia Proceedings Vol. **866**, 13 (2005)

Other papers by the author:

Isotope dependence of the lifetime of the 1136 cm^{-1} vibration of oxygen in silicon

K. K. Kohli, N. Q. Vinh, D. West, S. K. Estreicher, T. Gregorkiewicz, I. Izeddin, K. M. Itoh, and G. Davies
Physical Review Letters **96**, 225503 (2006)

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Nuclear Instruments and Methods in Physics Research, Section B: Beam Interactions with Materials and Atoms **253**, 200 (2006)

Mid-infrared spectroscopy of the Er-related donor state in Si/Si:Er³⁺ nanolayers

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Materials Science and Engineering B **146**, 131 (2008)

