

## Book chapters

1. Gianluca Coletti, Daniel Macdonald and Deren Yang, Chapter 3, “*Role of impurities in solar silicon*”, in *Advanced Silicon Materials for Photovoltaic Applications*, edited by S. Pizzini. Published by Wiley (2012).
2. Andres Cuevas, Daniel Macdonald and Ronald A. Sinton, Chapter III-1, “*Characterisation and diagnosis of silicon wafers, ingots and solar cells*”, in *Practical Handbook of Photovoltaics, 2<sup>nd</sup> Edition: Fundamentals and Applications*, edited by Augustine McEvoy, Tom Markvart and Luis Castañer. Published by Elsevier, Oxford (2011).

## Journal articles

1. N.E. Grant, F.E. Rougieux, D. Macdonald, James Bullock and Yimao Wan, “*Grown-in point defects limiting the bulk lifetime of p-type float-zone silicon wafers*”, accepted for publication in *Journal of Applied Physics* (2015).
2. H. C. Sio, T. Trupke and D. Macdonald, “*Quantifying the recombination strength of grain boundaries in multicrystalline silicon wafers through photoluminescence imaging*”, accepted for publication in *Journal of Applied Physics* (2015).
3. F. E. Rougieux, N.E. Grant, C. Barugkin, D. Macdonald and J.D. Murphy, “*Influence of annealing and bulk hydrogenation on lifetime limiting defects in nitrogen doped float zone silicon*”, accepted for publication in *IEEE Journal of Photovoltaics* (2015).
4. P. Zheng, F. E. Rougieux, N. E Grant and D. Macdonald, “*Evidence for vacancy-related recombination active defects in as-grown n-type Czochralski silicon*”, accepted for publication in *IEEE Journal of Photovoltaics* **5** (1), pp. 183-188 (2015).
5. Hieu T. Nguyen, Fiacre E. Rougieux, Simeon C. Baker-Finch and Daniel Macdonald, “*Impact of internal reflection and carrier profile on photoluminescence spectra in crystalline silicon wafers at different temperatures*”, *IEEE Journal of Photovoltaics* **5** (1), pp. 77-81 (2015).
6. AnYao Liu, Chang Sun and Daniel Macdonald, “*Hydrogen passivation of interstitial iron in boron-doped multicrystalline silicon*”, *Journal of Applied Physics* **116**, 194902 (2014).
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8. H. C. Sio, S. P. Phang, T. Trupke and D. Macdonald, “*An accurate method for calibrating photoluminescence-based lifetime images on multicrystalline silicon wafers*”, *Solar Energy Materials and Solar Cells* **131**, pp. 77-84 (2014).
9. T. Niewelt, S. Lim, J. Holtkamp, J. Schön, W. Warta, D. Macdonald and M.C. Schubert, “*Interstitial oxygen imaging from thermal donor growth – a fast photoluminescence based method*”, *Solar Energy Materials and Solar Cells* **131**, pp. 117-123 (2014).
10. Chang Sun, Fiacre E. Rougieux and Daniel Macdonald, “*Reassessment of the recombination parameters of chromium in n- and p-type crystalline silicon and chromium-boron pairs in p-type crystalline silicon*”, *Journal of Applied Physics* **115**, 214907 (2014).
11. Bernhard Mitchell, Daniel Macdonald, Jürgen W. Weber, Jonas Schön, Hannes Wagner and Thorsten Trupke, “*Imaging Interstitial Iron Concentration of Boron Doped Silicon Bricks via Spectral Photoluminescence*”, *IEEE Journal of Photovoltaics* **4** (5), pp. 1185-1196 (2014).
12. F. E. Rougieux and D. Macdonald, “*Reading data stored in the state of metastable defects in silicon using photoluminescence: proof of concept and physical limits to the data storage density*”, *Applied Physics Letters* **104**, 124103 (2014).
13. Hieu T. Nguyen, Simeon C. Baker-Finch, and Daniel Macdonald, “*Temperature dependence of the radiative recombination coefficient in crystalline silicon from spectral photoluminescence*”, *Applied Physics Letters* **104**, 112105 (2014).
14. A. Y. Liu and Daniel Macdonald, “*Precipitation of iron in multicrystalline silicon during annealing*”, *Journal of Applied Physics* **115**, 114901 (2014).
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## Conference papers

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2. H. C. Sio, T. Trupke and D. Macdonald, “*Quantifying the recombination strength of grain boundaries in multicrystalline silicon wafers through photoluminescence imaging*”, Proceedings of the 6<sup>th</sup> World Conference on Photovoltaic Energy Conversion (WCPEC-6), Kyoto, Japan (2014).
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