

Patent, Veröffentlichungen, Konferenz- und Messebeiträge

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[Pat.1] Deutsches Patent: Nr. 198 16 403.7 für ILGAR-Oxid-Schichten.

[Pat.2] Europäische und internationale Patentanmeldung für ILGAR-Oxid-Schichten:

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Veröffentlichungen:

Submicron metal oxide structures

[E1] C. Bechinger, H. Muffler, C. Schäfle, O. Sundberg and P. Leiderer, *Submicron Metal Oxide Structures by a Sol-Gel Process on Patterned Substrates*, Thin Solid Films, **366**, 135 (2000).

Transparent Conducting Oxides

[E2] A. Jäger-Waldau, H.-J. Muffler, R. Klenk, M. Kirsch, C. Kelch and M. C. Lux-Steiner: *Gallium Doped ZnO for Thin Film Solar Cells*, Compound Semiconductors 1998. Proceedings of the Twenty-Fifth International Symposium on Compound Semiconductors, ed. by H. Sakaki, J.-C. Woo, N. Yokoyama, Y. Hirayama, IOP Publishing, Bristol, UK, 565 (1999).

Ion Layer Gas Reaction

[E3] J. Möller, Ch.-H. Fischer, H.-J. Muffler, R. Könenkamp, I. Kaiser, C. Kelch and M. C. Lux-Steiner, *A novel deposition technique for compound semiconductors on highly porous substrates: ILGAR*, Thin Solid Films **361-362**, 113 (2000).

[E4] H.-J. Muffler, Ch.-H. Fischer, K. Diesner and M.C. Lux-Steiner, *ILGAR – A novel thin film technology for sulfides*, Solar Energy Materials and Solar Cells, **67** (1-4), 121 (2001).

[E5] M. Bär, H.-J. Muffler, Ch.-H. Fischer and M.C. Fischer, *ILGAR thin film technology extended to metal oxides*, Solar Energy Materials and Solar Cells, **67** (1-4), 113 (2001).

[E6] M. Bär, H.-J. Muffler, Ch.-H. Fischer and M.C. Lux-Steiner: *ILGAR-ZnO as Window Extension Layer in Chalcopyrite Solar Cells*, Proc. 16th European PVSEC, Glasgow 2000, eingereicht.

[E7] H.-J. Muffler, M. Bär, Ch.-H. Fischer and M.C. Lux-Steiner, *Sulfidic Buffer Layers for Cu(InGa)(S,Se)₂ Solar Cells Prepared by Ion Layer Gas Reaction (ILGAR)*, 28th IEEE Photov. Spec. Conf., 15 – 22 September 2000, Anchorage, USA

[E8] Ch.-H. Fischer, H.-J. Muffler, M. Bär and M.C. Lux-Steiner: *Novel Possibilities for Thin Film Solar Cells*, Thin Solid Films, eingereicht

- [E9] H.-J. Muffler, Ch.-H. Fischer, M. Giersig, M. Bär and M.C. Lux-Steiner: *Mechanistical Insights into ILGAR – the Novel Preparation Method of Nano Crystalline Thin Layers*, J. Appl. Phys., eingereicht.
- [E20] M. Bär, H.-J. Muffler, Ch.-H. Fischer, S. Zweigart, F. Karg and M.C. Lux-Steiner, *ILGAR-ZnO-WEL: an adequate substitution of CBD-CdS-buffer with superior device performance*, Prog. Photovolt Res. Appl., eingereicht.

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- H.-J. Muffler, Ch.-H. Fischer, J. Möller, B. Mertesacker, U. Gerloff, H.-J. Wittmaak, M. Giersig and M. C. Lux-Steiner, *ILGAR - A Novel Chemical Deposition Method for Sulfidic Thin Films*, Intern. Conf. Electr. Mat. & Europ. Mat. Res. Soc., Spring Meeting, May 1999 in Strasbourg, France.
- J. Möller, Ch.-H. Fischer, H.-J. Muffler, R. Könenkamp, I. Kaiser, C. Kelch, B. Mertesacker, U. Gerloff, H.-J. Wittmaak and M. C. Lux-Steiner, *A Novel Deposition Technique for Compound Semiconductors on Highly Porous Substrates: ILGAR*, Intern. Conf. Electr. Mat. & Europ. Mat. Res. Soc., Spring Meeting, May 1999 in Strasbourg, France.
- H.-J. Muffler, Ch.-H. Fischer, K. Diesner and M. C. Lux-Steiner, *ILGAR - A Novel Chemical Deposition Technique for Sulfidic Thin Buffer Layers of Chalcopyrite Solar Cells*, 11th Photovoltaic Solar Energy Conference, Sept. 1999 in Sapporo, Japan.
- C. Heske, U. Groh, D. Eich, R. Fink, E. Umbach, A. Ennaoui, H.-J. Muffler, Ch.-H. Fischer, M.C. Lux-Steiner, W. Riedl, and F. Karg, *Spectroscopic Investigation of Buried Interfaces in Cu(In,Ga)(S,Se)₂-Based Solar Cells*, Intern. Conf. Electr. Mat. & Europ. Mat. Res. Soc., Spring Meeting, May 2000 in Strasbourg, France.
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- M. Bär, H.-J. Muffler, Ch.-H. Fischer and M.C. Lux-Steiner: *ILGAR-ZnO as Window Extension Layer in Chalcopyrite Solar Cells*, Proc. 16th European PVSEC, June 2000 in Glasgow, UK.
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Ausstellungen und Messen:

- Solar Energy, Berlin (1999).
- Hannover Messe (1999).