

## Dr. Elke Erben



technology development integration bei GLOBALFOUNDRIES  
Semiconductors

<http://www.directoryinventor.com/profile/view/yoOBQI95>

## Experience

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### technology development integration

GLOBALFOUNDRIES

Semiconductors

January 2011 - Present

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### scientist

Namlab GmbH

Educational Institution; Semiconductors

July 2009 - December 2010

development low temperature high-k ALD process thin film characterization methods (physical and electrical characterization) set up MIS and MIM characterization routes within Namlab and TU Dresden/ IHM project creation and aquisition with industrial and R&D partners

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### senior engineer process development films

Infineon/ Qimonda Dresden

Semiconductors

2002 - 2009

high-k ALD material and process development in R&D mode and in production transfer R&D processes to production unit process development methodology (DOE)

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### scientist/ process development

center for microtechnologies @ TU Chemnitz

Semiconductors

1987 - 1991

CVD process development SiO<sub>2</sub>, Si<sub>3</sub>N<sub>4</sub> and high-k materials Al<sub>2</sub>O<sub>3</sub>, Ta<sub>2</sub>O<sub>5</sub>

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## Education

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Technische Universitt Chemnitz

Physik, Mathematik, solid state physics, thin film characterization

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Patents (6) [Methods for fabricating integrated circuits with fluorine passivation](#)

Dina Triyoso, Elke Erben, Robert Binder  
July 29, 2014: 08791003

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## **Passivating point defects in high-K gate dielectric layers during gate stack formation**

Elke Erben, Martin Trentzsch, Richard J Carter  
February 25, 2014: 08658490

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## **Methods for fabricating integrated circuits with narrow, metal filled openings (1 worldwide citation)**

Sven Schmidbauer, Dina H Triyoso, Elke Erben, Hao Zhang, Robert Binder  
February 18, 2014: 08652890

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## **Methods for fabricating integrated circuits with controlled P-channel threshold voltage (3 worldwide citation)**

Dina Triyoso, Elke Erben, Klaus Hempel  
April 16, 2013: 08420519

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## **Deposition method for a transition-metal-containing dielectric (7 worldwide citation)**

Stephan Kudelka, Lars Oberbeck, Uwe Schroeder, Tim Boescke, Johannes Heitmann, Annette Saenger, Joerg Schumann, Elke Erben  
February 23, 2010: 07666752

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## **Method of manufacturing a dielectric layer and corresponding semiconductor device**

Andreas Spitzer, Elke Erben  
May 12, 2009: 07531405

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[View all \(6\)](#)