



Dr. Valentina Kutepova
Clean Room Manager

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Research Summary:

Valentina Kutepova earned her PhD degree in physics of semiconductor materials and devices from Moscow Tech University, Russia.

She joined CNM in 2006 as a Clean Room Manager. Previously V. Kutepova worked at Oxford and Manchester Universities (UK), University of South Carolina (USA), Institute of Solid State Physics (BG) and Moscow Tech University and holds progressive positions as assistant and associate professor, scientist and senior scientist. Her research interest has been focused on advanced technologies for thin film growth and microelectronic device fabrication and characterization and she successfully developed:

- Thin film rechargeable lithium battery for application in implantable medical devices, MEMS and microelectronic devices integrated on chip.
- Systems based on bulk and thin film piezoelectric material SAW sensors for remote interrogated monitoring of pressure, force and stress for automotive industry. The developed remote RF interrogated system was installed in the Formula 1 Benetton racing car for pressure monitoring in tires.
- Surface Acoustic Wave (SAW) devices for application in radars, communication systems and as sensors for monitoring environmental conditions: temperature, humidity, selective gases.

V. Kutepova was a project manager of several R&D projects, which were completed on time and in the budget. She co-authored 44 published papers. She developed university course lectures, ‘The science and engineering of microelectronic device fabrication’ and supervised several PhD and MSc students. She was a secretary of organizing committee of “Acoustoelectronics” international conferences.