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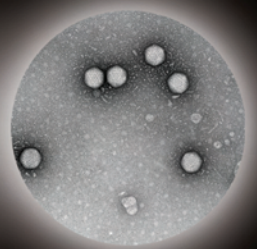
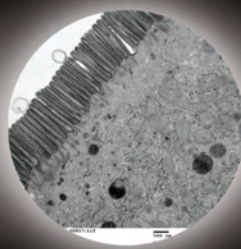
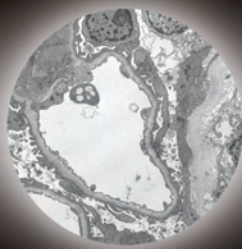
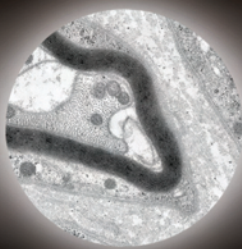
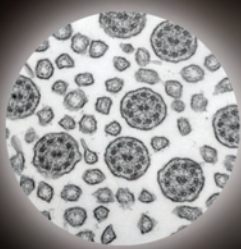
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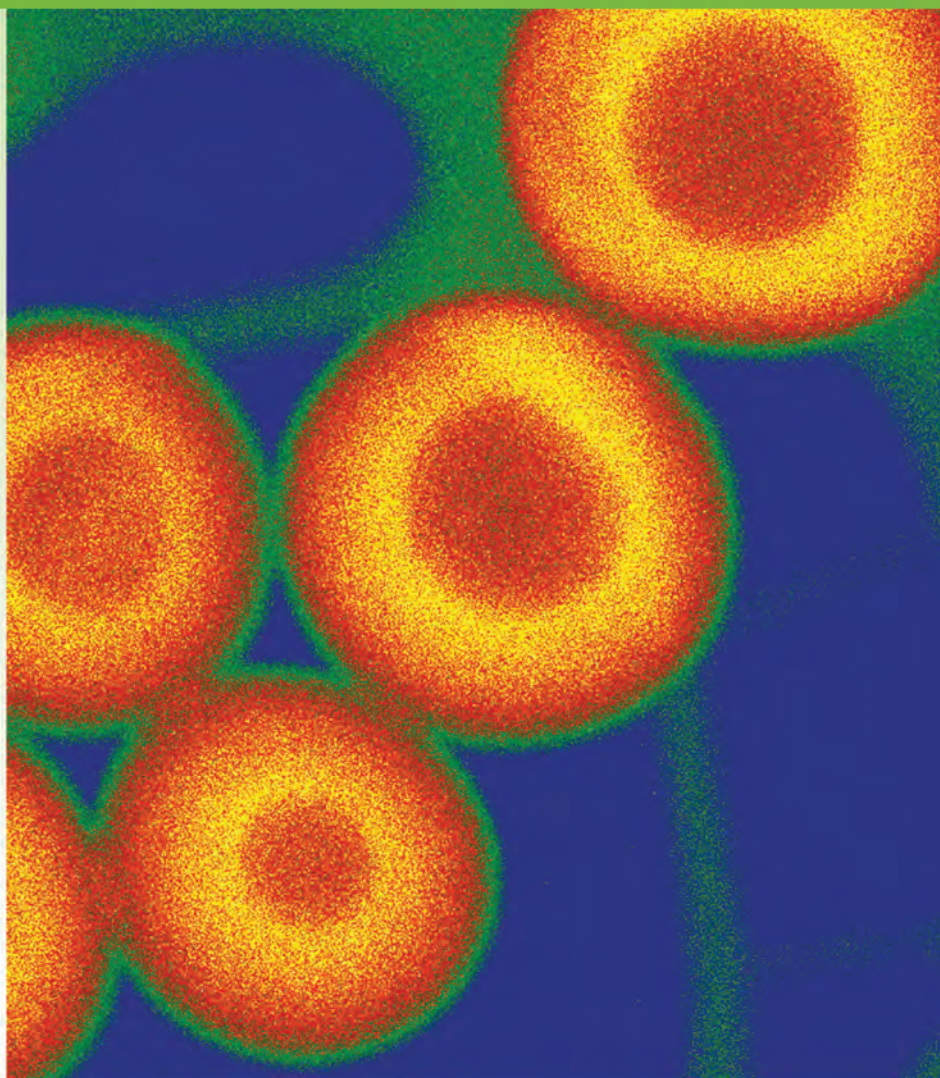
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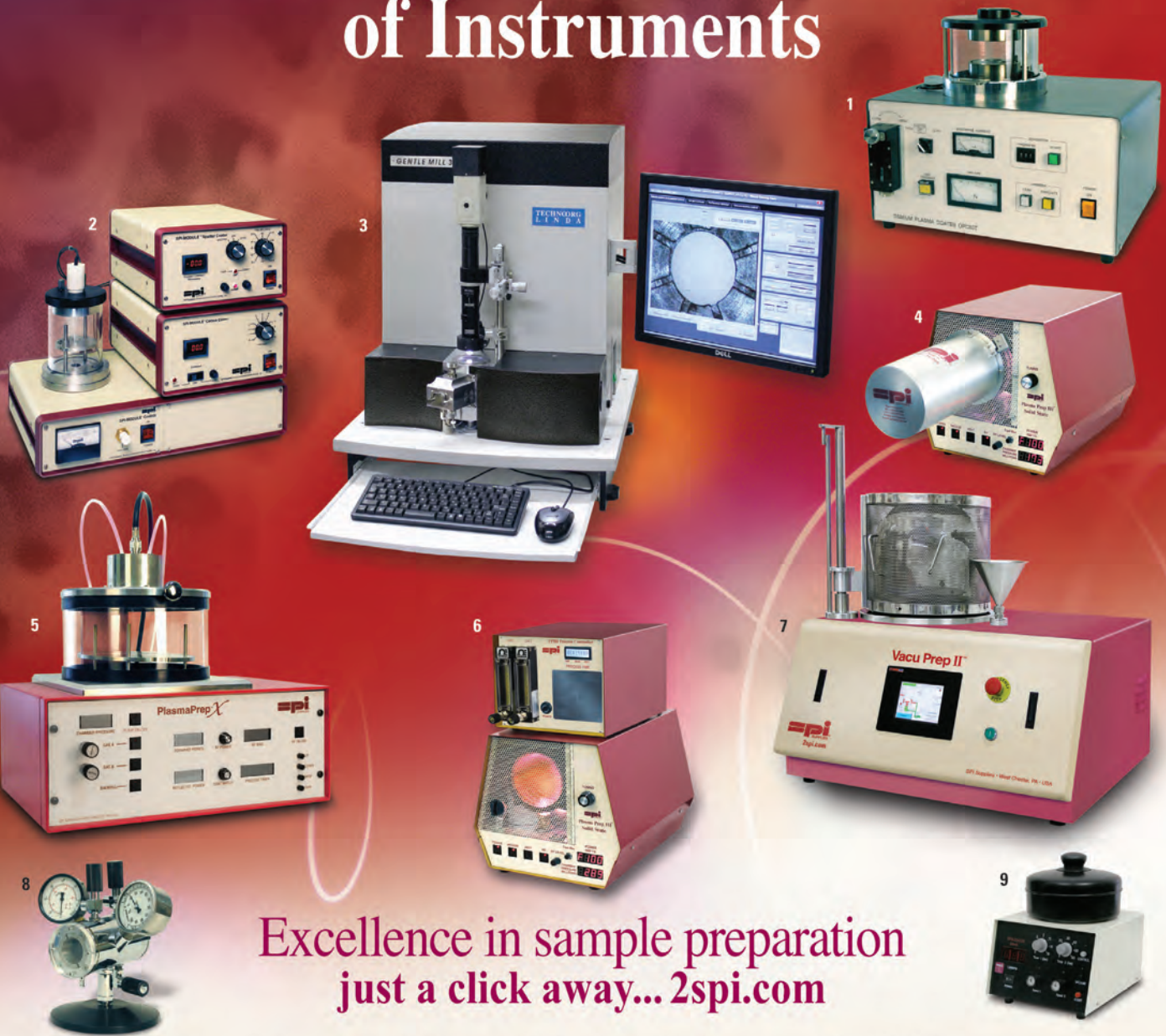


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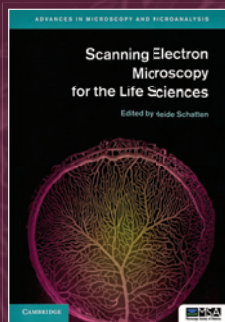
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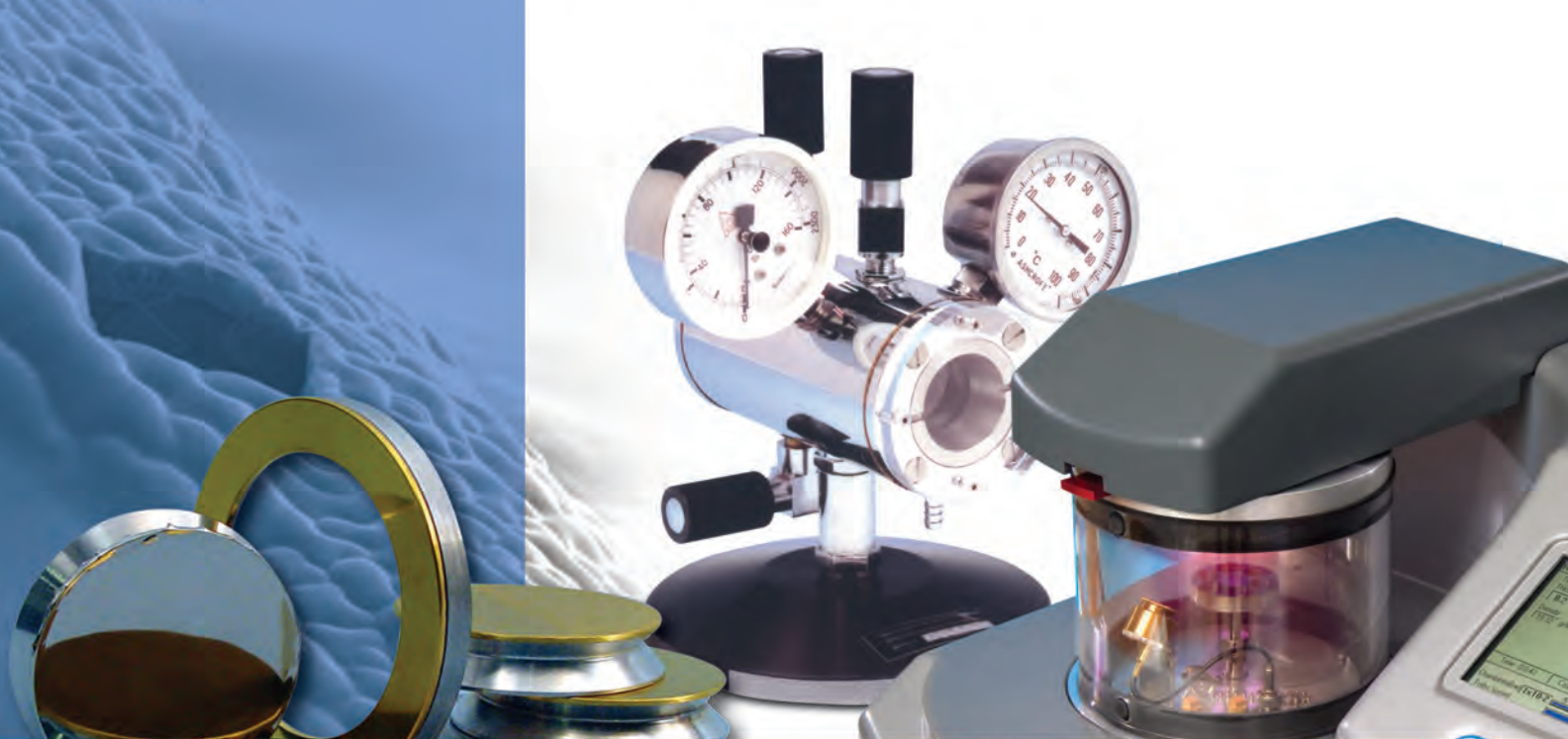


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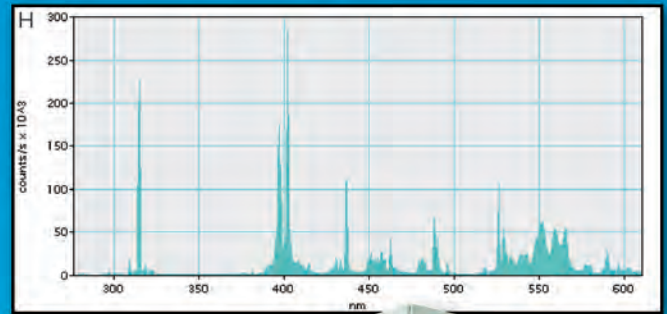
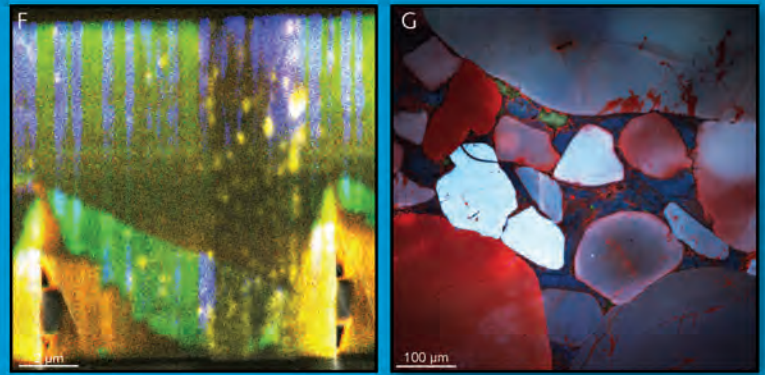
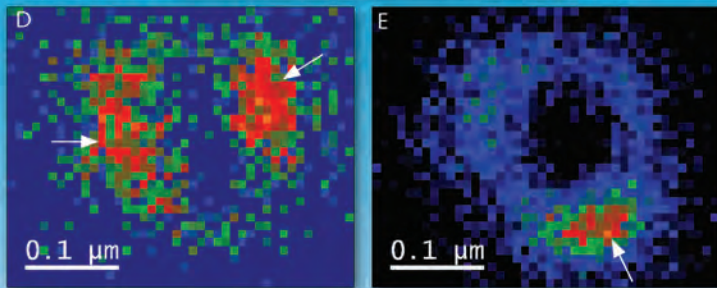
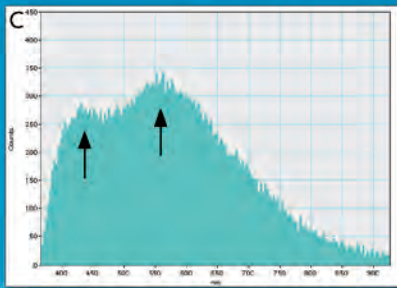
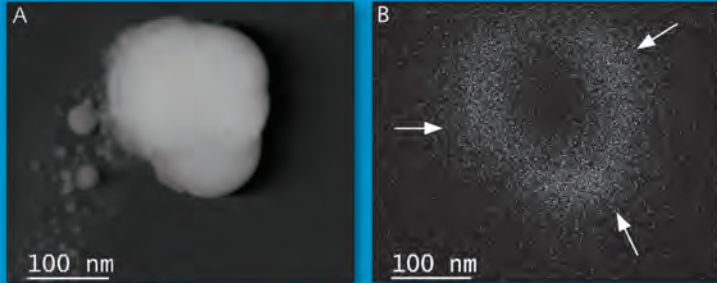
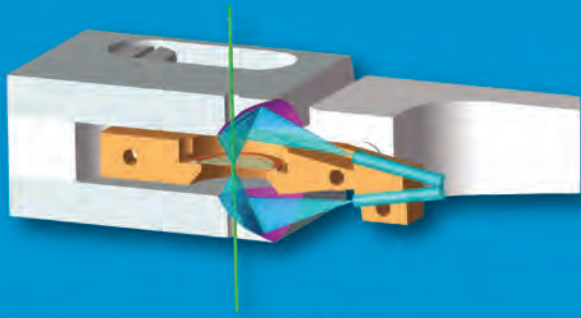


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Top Image: Schematic cross section through the Vulcan™ holder showing the specimen region and top and bottom collection mirrors (mirrored surface shown in purple). An electron beam (green) stimulates the specimen to emit photons (blue) which are focussed by the collection mirrors into optical fibres situated away from the specimen region. Bottom Images A-E: CL study of colloidal silver nanoparticle; A) HAADF image; B) panchromatic CL image (acquired simultaneously to the HAADF image) displaying three 'bright' resonance nodes (indicated by arrow markers); C) cathodoluminescence spectrum with two peaks corresponding to spectrally discrete resonance modes at 430 and 510 nm; D) and E) cathodoluminescence band pass images at 430 and 510 nm ±40 nm extracted from parent spectrum-image showing resonance modes are separated spatially and spectrally.

Images F-H: F) GaN film in cross section imaged with Gatan MonoCL4™ CL imaging and spectroscopy system. Composite image of stacking fault, threading dislocation, point defect and band gap luminescence. Temperature = 6 K; G) quartz arenite polished section cathodoluminescence image prepared using the Gatan Ilion™ and imaged with Gatan ChromaCL2™ imaging system. Image courtesy of Dr. J. Schieber, Indiana University; H) Cathodoluminescence spectrum from lanthanide doped yttrium aluminium garnet single crystal acquired at room temperature. Multiple spectral features corresponding to various Eu³⁺ d to f orbital electron transitions observed. Bottom image: MonoCL4™ Elite CL imaging and spectroscopy system.

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