

Images: APE



Carmina production at the premises of laser specialist APE in Berlin



New Infrared Laser “Carmina”

More red is impossible

The Berlin-based laser specialist APE Angewandte Physik & Elektronik has launched an innovative laser source: Carmina. This is an automated and tunable infrared laser developed on behalf of the American company Anasys Instruments – today part of the Bruker Group – which is now being manufactured in series production in Berlin.

APE focused on two key elements in its development. One is a wide tunable infrared and mid-infrared wavelength range, covering 2.15 to 15 μm . No other laser system on the market is offering such a wide wavelength range.

The other key element is that Carmina has two operating modes with a different spectral bandwidth. In narrowband mode Carmina offers a narrow bandwidth of twenty wave num-

bers, while in broadband mode more than three hundred wave numbers are available. This makes Carmina suitable for both spectroscopic experiments (narrowband) as well as chemical imaging methods (broadband).

The comprehensive configuration is likely to convince scientists and research laboratories in industry, as up to now the purchase of several laser systems is necessary to achieve a similar variety of parameters.

Bruker will equip a part of its Nano-scale IR instrument series with Carmina. Dean Dawson, senior director and business manager of the Bruker nanoIR product line, explains: “Bruker Anasys collaborated with APE on the development of the Carmina laser due to APE’s specific technology and skillset. The Carmina laser will provide unique capabilities to the field of nearfield IR spectroscopy that will

drive new nanoscale chemical applications due to its combined broadband spectroscopy and chemical imaging capabilities.”

Thomas Neicke, CMO at APE, adds that not only Bruker customers can look forward to working more productively with the new single laser system. Customers from traditional fields of infrared spectroscopy have already expressed their interest in Carmina, for example in the field of exhaust gas testing.

Company

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