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### Topography and Photocurrent Mapping of III-V Photovoltaic Cells Using the Near Field Optical Microscopy (SNOM)

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Scanning Near-field Optical Microscopy (SNOM) is a powerful technique that scans a tapered optical fiber across the sample, illuminating only that area of the sample that lies directly under the tip aperture (~100nm). Kept within few nanometers of the surface, the tip illuminates the sample in the near field allowing the collection of optical information of the surface of the sample, with a resolution better than the diffraction limit of the operating light. In addition, this technique could be used in order to perform spatial resolved photocurrent measurements on photovoltaic devices. The emergence of SNOM opened up fields of studies that were inaccessible. The basic principles behind the enhancement of the optical resolution by SNOM, especially the detection of the high spatial frequencies that are very confined in the near field regions, are going to be discussed during this poster.