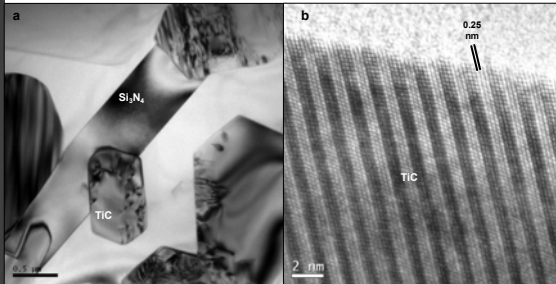


# Transmission Electron Microscope



Sintered  $\text{Si}_3\text{N}_4$ -Ti C composite. HREM image of a TiC grain.

**Model:** **TECNAI G<sup>2</sup> 30ST, FEI Company, The Netherlands**

**Features:**

- (a) Accelerating voltage : 50 - 300 kV
- (b) Magnification range : 1000 kx
- (c) Resolution : 0.20 nm(Point), 0.14nm (Line) and 1.0nm (Stem)
- (d)  $\text{LaB}_6$  emitter
- (e) SUPER TWIN objective lens for high resolution imaging down to atomic scale.
- (f) FEI double-tilt specimen holder for systematic specimen tilting necessary to carry out crystallographic studies.
- (g) 'GATAN' make multi-scan CCD camera capable of recording both the images and the diffraction patterns through 'Gatan Digital Micrograph' as well as 'TEM Imaging and Analysis (TIA)' application softwares, both embedded in the main 'TEM User Interface' of the microscope. Facility to acquire digital images on plate camera.
- (h) The combination of high resolution imaging with fully embedded energy dispersive system EDAX for quantitative analysis of various elements.

**Applications:**

- (i) High resolution imaging, bright-field and dark-field imaging of ceramic, metallic, semiconductor and biological samples.
- (ii) Selected area and convergent beam electron diffraction revealing crystallographic information.
- (iii) Single particle EDAX analysis, Line scanning, Spectrum Imaging in STEM mode

**Locations:** **Analytical Facility Division**