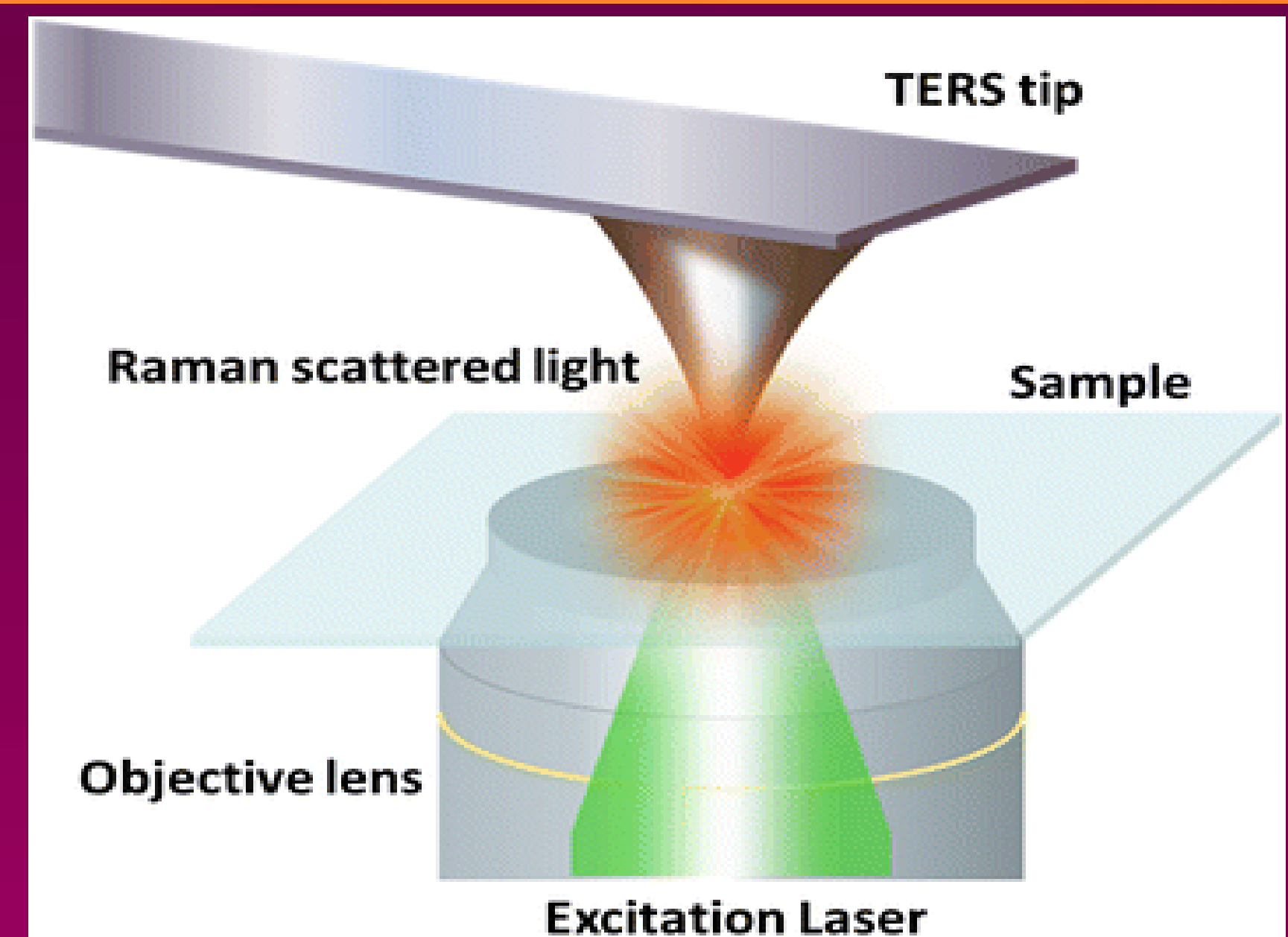




# RAMAN & PHOTOLUMININENCE SPECTROPHY

The Raman spectroscopy is based on the Raman effect. The Raman effect, the phenomenon of inelastic scattering of light (Raman scattering) was discovered by Dr. C. V. Raman in 1928. In 1960s, Raman spectroscopy has been practically used due to the invention of Laser system.



## Applications

- Contaminant identification
- Combinatorial chemistry
- *In vivo* analysis & skin depth profiling
- Gemstone and mineral identification
- Phase distribution in rock sections
- Phase transitions
- Minerals behavior under extreme conditions
- Single Walled Carbon Nanotubes
- Purity of Carbon Nanotubes (CNTs)
- Electrical properties of CNTs
- Defect analysis in carbon materials
- Diamond quality and provenance

- Characterization of intrinsic stress/strain
- Alloy composition
- Contamination identification
- Super lattice structure
- $sp^2$  and  $sp^3$  structure in carbon materials
- Hetero-structures
- Photoluminescence micro-analysis
- Diamond like carbon coating properties
- Defect analysis
- Doping effects
- Hard disk drives

