

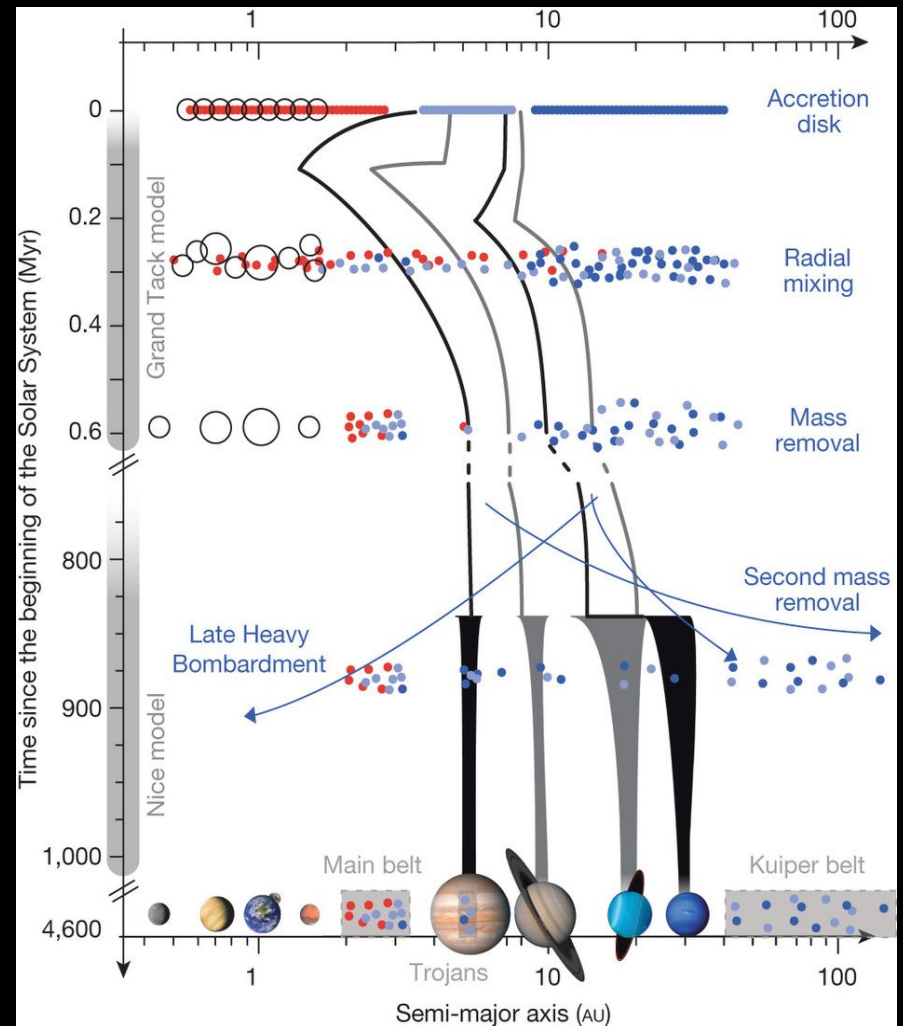
Asteroid 101

Bellaire High School

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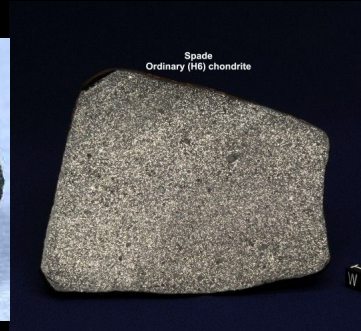
History

- Protoplanetary Disk
- Grand Tack model,
- Nice model
- Late Heavy Bombardment



Classification

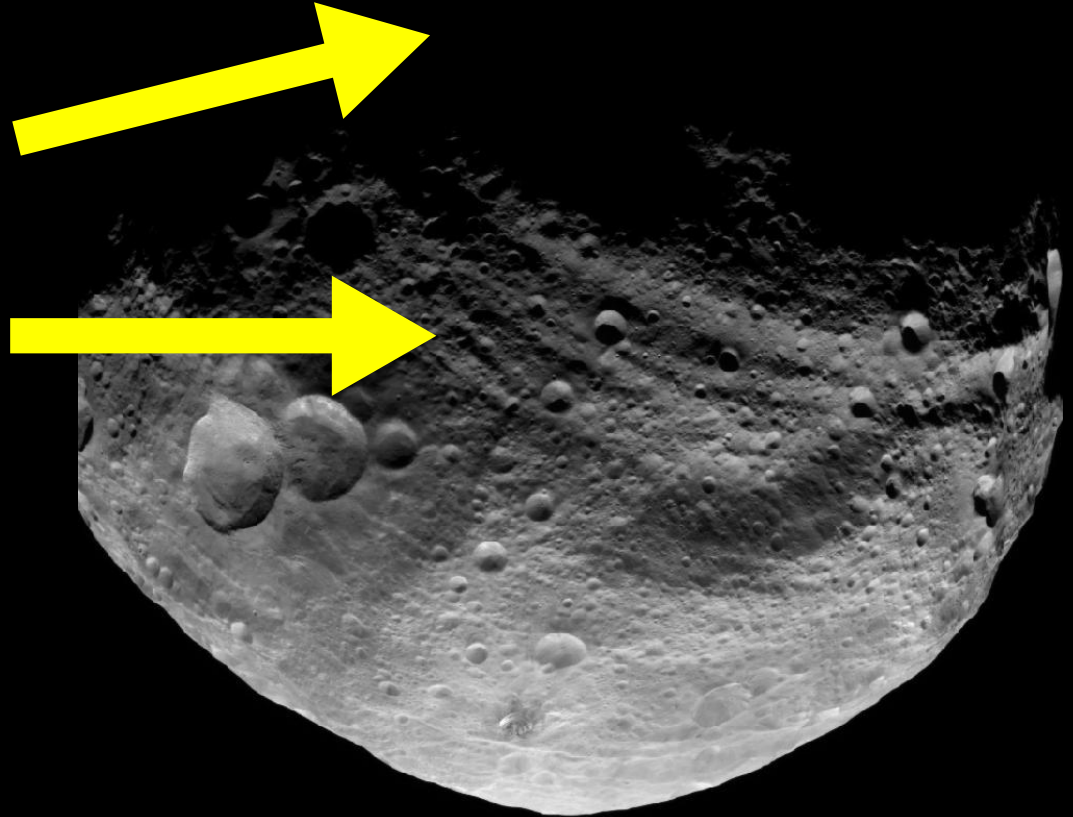
- Characteristics: albedo, reflection spectrum, bulk density
- C-type: 75%
- S-type: 15%
- M-type: 10%



- Most asteroids in asteroid belt, smaller (1 km)

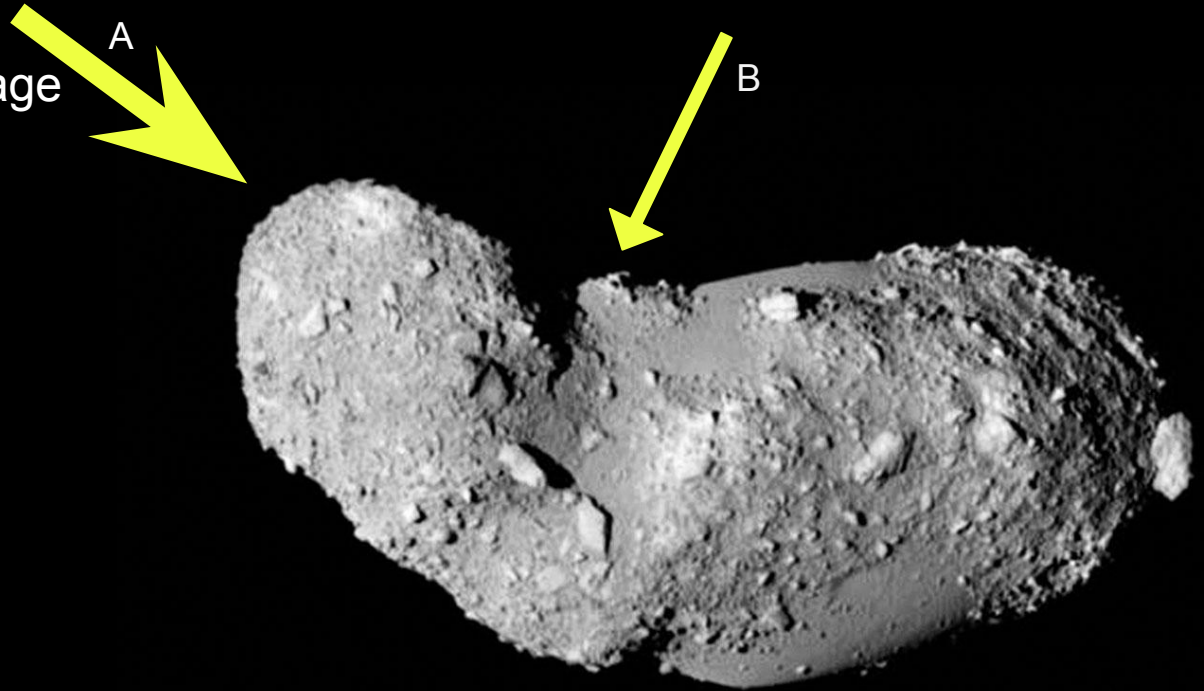
4 Vesta - V-type, Asteroid Belt, 510 km in diameter

- Almost spherical
- Rheasilvia
- Vestoids
- HED
- Dawn mission



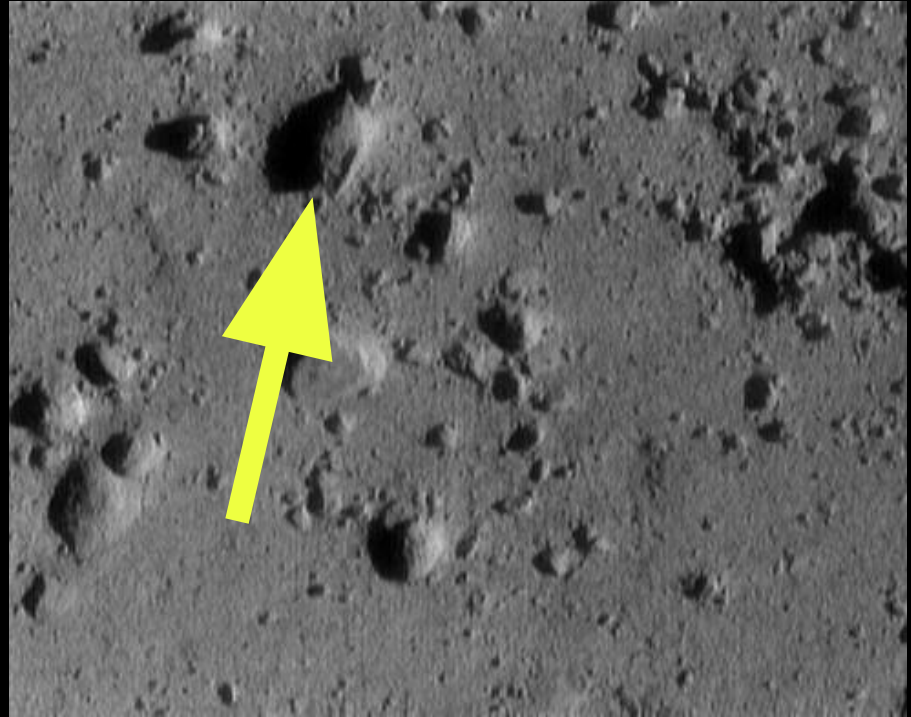
25143 Itokawa - S type, NEA, Apollo, 540x270x210 (m)

- Mineral Assemblage
- Rubble Pile
- Contact Binary
- Hayabusa
- Regolith
- Parent Body



433 Eros - S type, Amor, 34x13x13 km

- 12m across from 250m
- NEAR Shoemaker
- Deep regolith
 - Seismic shaking
 - Higher surface gravity than Itokawa



Eros (cont.)

- Softened craters - space weathering
- Solid body
- Main belt collision

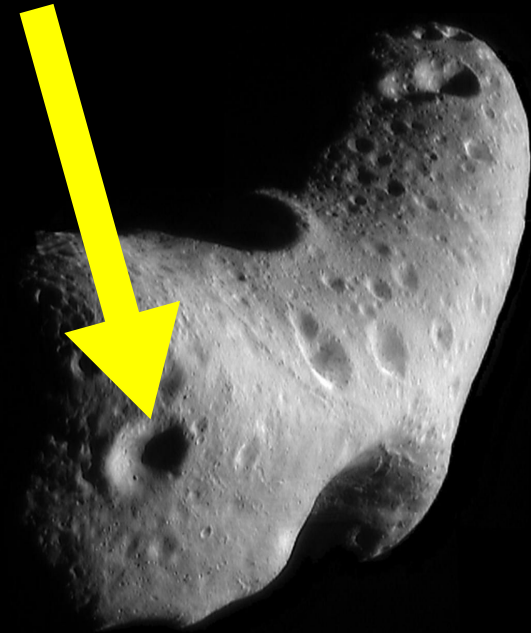


Image Credit: <http://www.jpl.nasa.gov/images/asteroid/20140616/eros20140616-full.jpg>