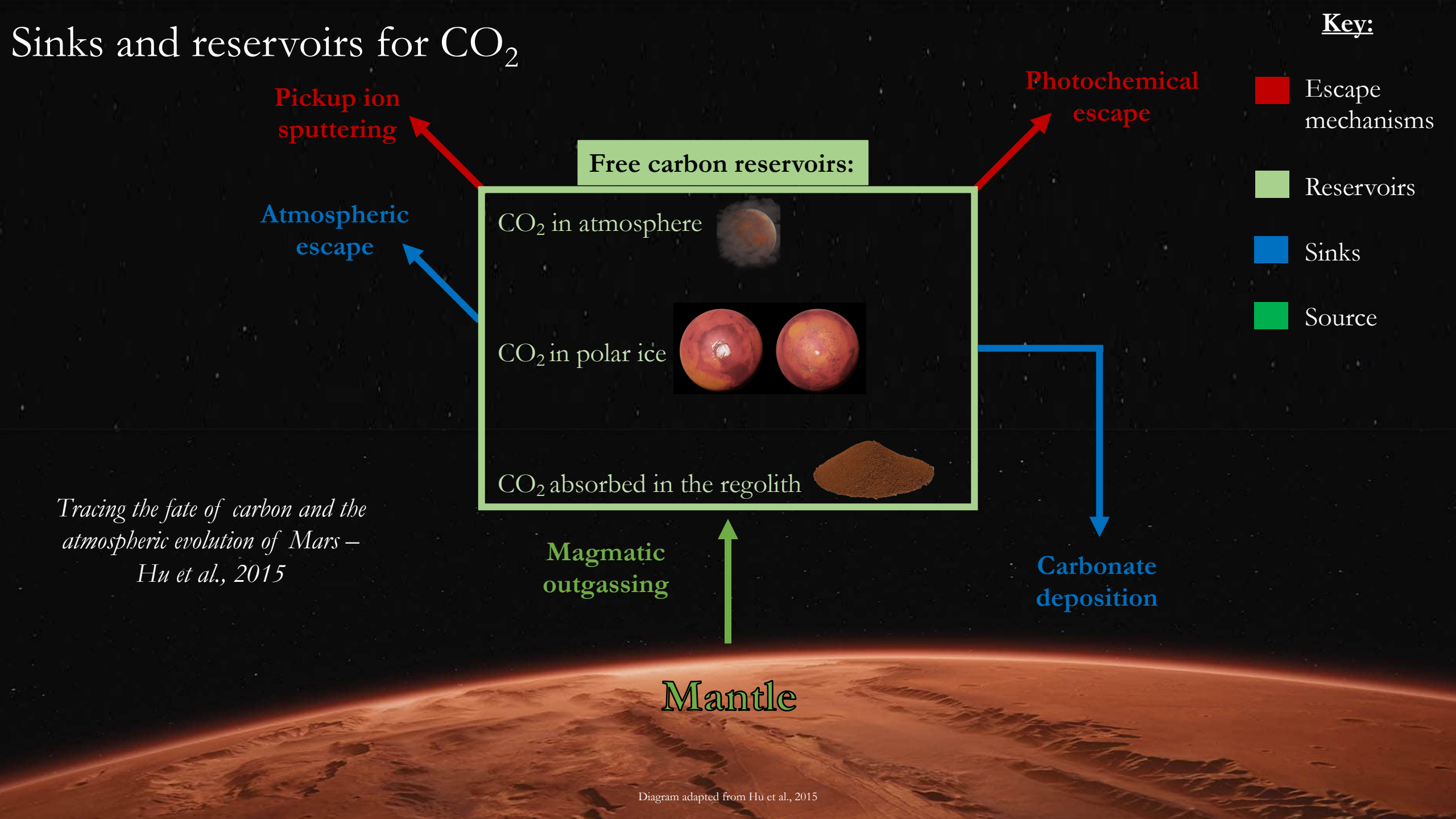
Sinks and reservoirs for CO_2



Tracing the fate of carbon and the atmospheric evolution of Mars – Hu et al., 2015

Diagram adapted from Hu et al., 2015

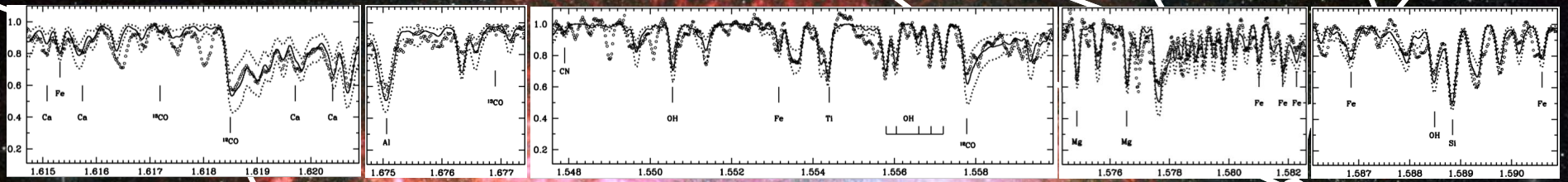
The Rosette Nebula

Rosette nebula globules: Seahorse giving birth to a star

Article:
Mäkelä, et al. (2017)

Presentation by
Sammi Rosenfeld

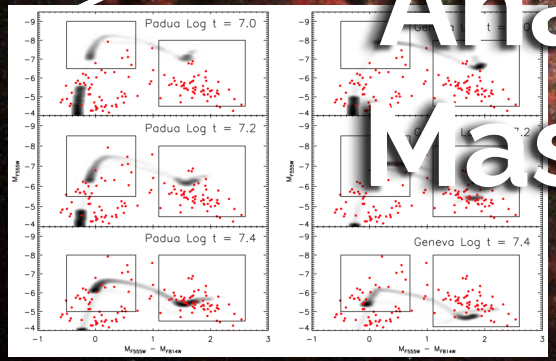
Credit: Black Dog Observatory

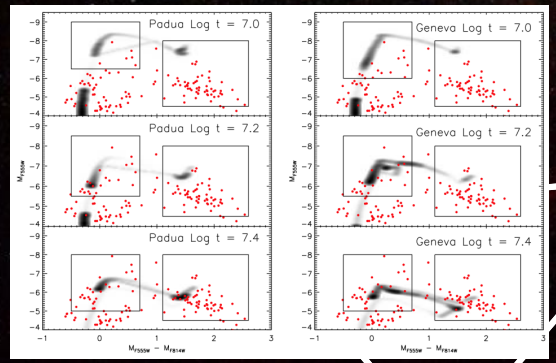


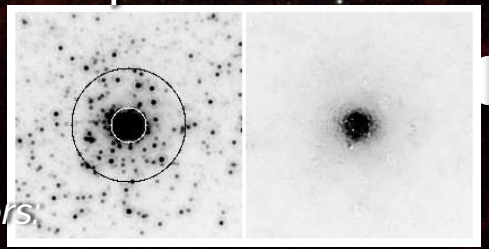
A Review on

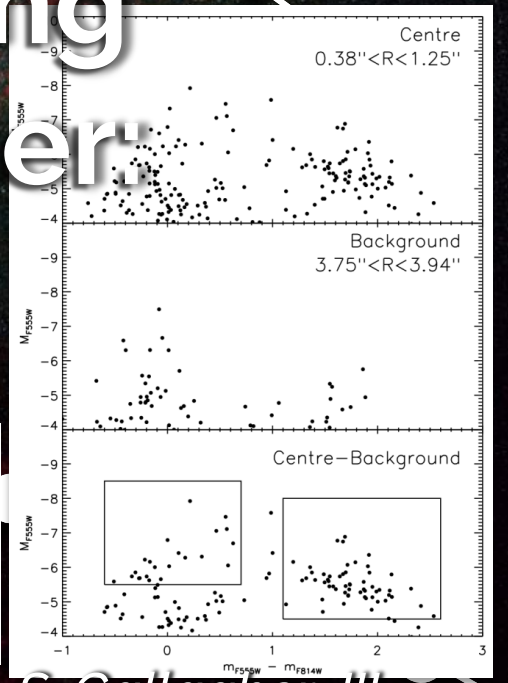
Anatomy of a Young Massive Star Cluster: NGC 1569-B

By Adhitya Sripennem



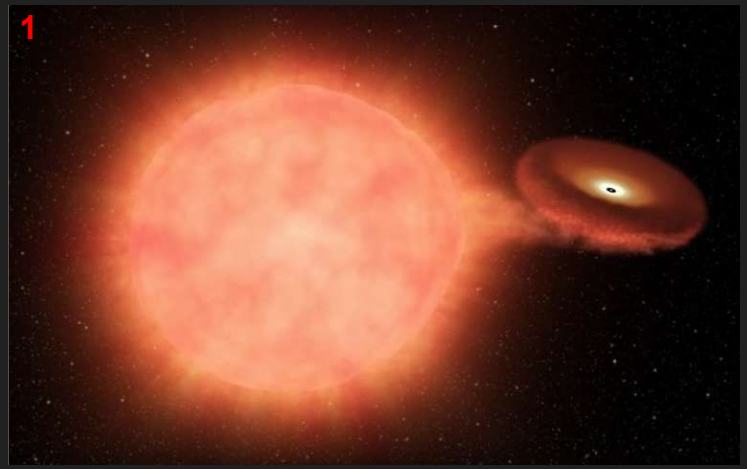




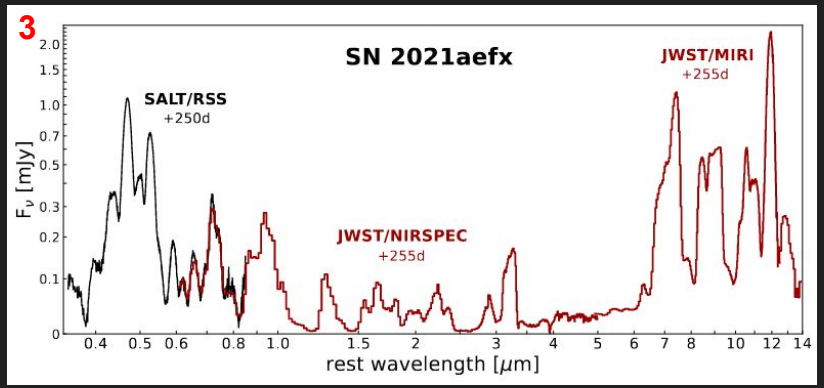


Original Authors:

S. S. Larsen, L. Origlia, J. Brodie, J. S. Gallagher, III



First Look at a Type Ia SN Nebular Spectrum with JWST



Matt Kalscheur

Green Peas, Blueberries, and Purple Grapes
Maggie Huber

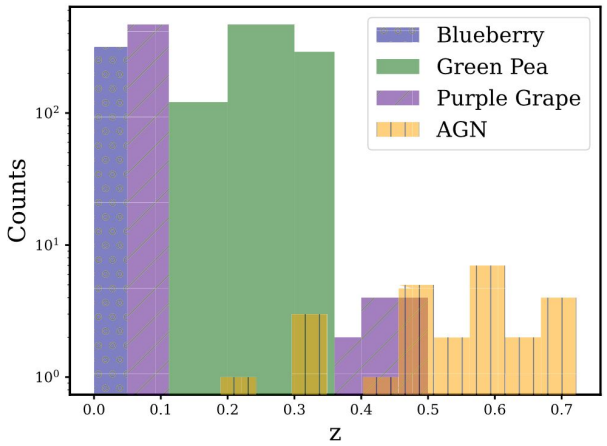


Figure 3. The spectral redshift distribution of the sources.

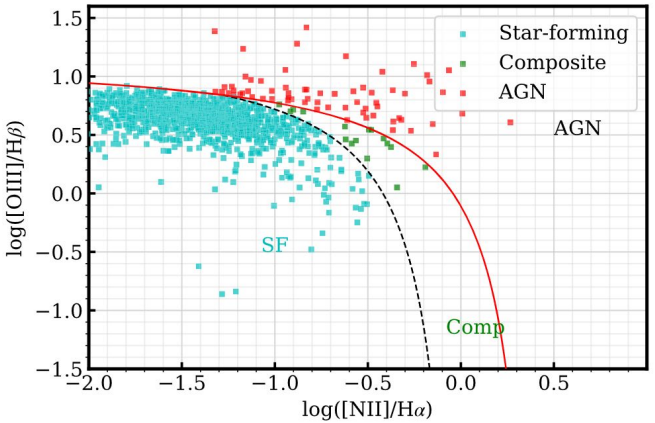
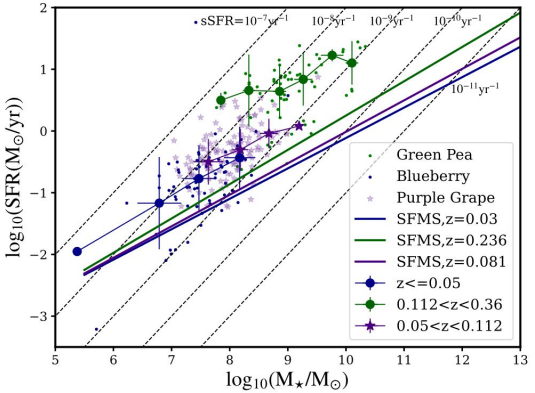


Figure 9. The BPT diagram of the strong [O III] λ5007 emission-line compact galaxies. This figure uses the plotting routine in Cherinka et al. (2019).



- Green peas, blueberries and purple grapes:
  - Are actively star forming
  - Are low metallicity
  - Are in very low density environments
- These are important to understand - so that we can use them to study their high-z Lya emitting counterparts

Summary

Importance of Gravitational Lensing

- Gravitational lensing plays a key role in the detection, confirmation, and analysis of JD1
  - Initially detected as a triply-imaged galaxy candidate
    - 3 components (A, B, C)
  - Magnified by a factor of μ ~13^5

Techniques for confirming JD1's redshift

1. Multi-band NIRCam Photometry
2. Combined NIRCam data + HST Frontier Field Photometry
3. NIRSpec spectrum of JD1