

Thermal-to-nonthermal element abundances in different Galactic environments

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Overall differential (LE)CR number at the end (t_f) of the SNR evolution:

$$N(p, t_f) = \int_0^{t_f} dt \, n(p, t) A_{\text{sh}}(t) \beta_{\text{sh}}(t) c \Lambda_{\text{ad}}(t, t_f) \quad \text{with} \quad n(p, t) = \frac{(\alpha - 1) \tilde{n}_j^{(\text{env})}}{p_{\text{inj}}} \left(\frac{p}{p_{\text{inj}}} \right)^{-\alpha}$$

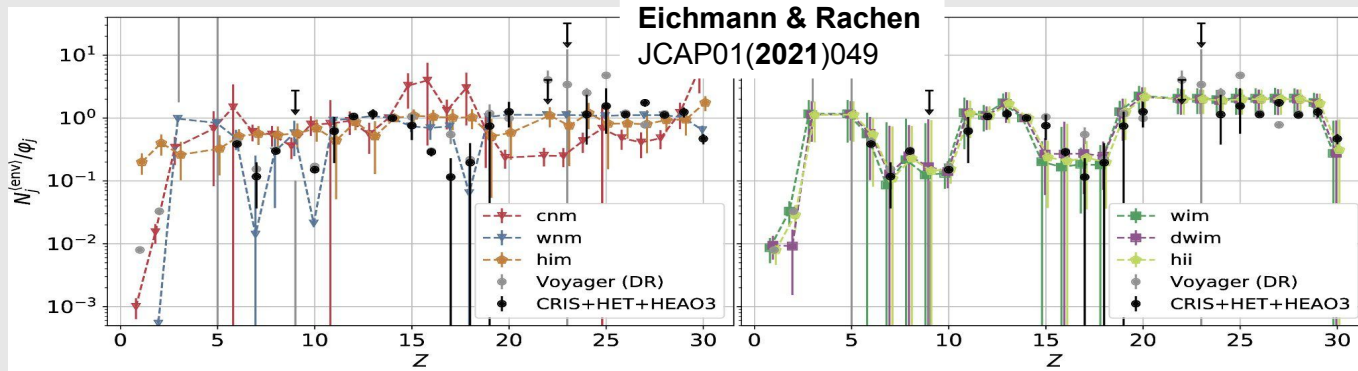
thermal
gas

shock evol.

dust

nonthermal
gas

- ❖ Comparing different uniform ISM phases *at the same kinetic energy per momentum*:



- ❖ Comparing *the spectral behavior* of uniform ISM and WR wind environments:

