

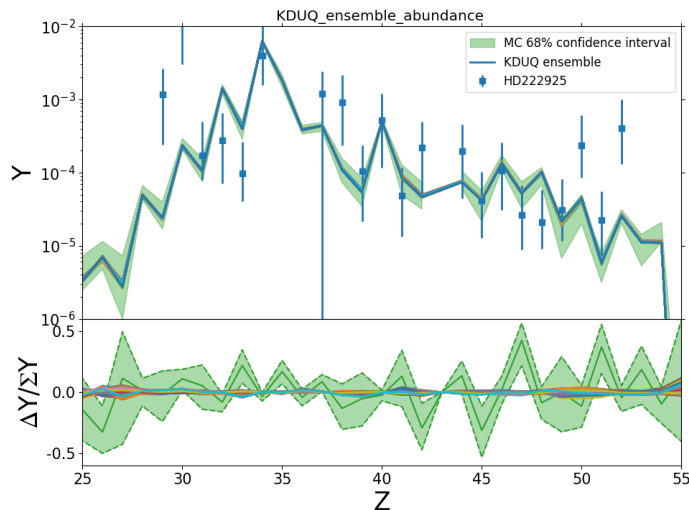
Impact of uncertainties and correlations in optical model potential on weak r -process

Koning-Delaroche Uncertainty Quantified (KDUQ) –

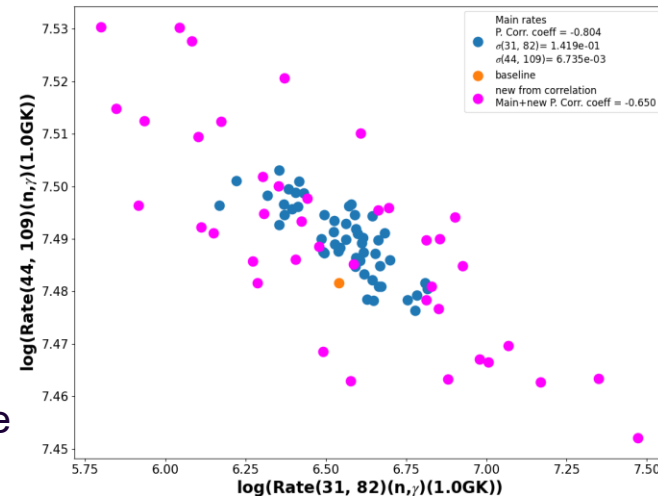
Global, phenomenological OMP with KD parameter estimation distribution, Pruitt *et al.* (2023)

Employed in neutron-capture $[(n, \gamma)]$ reaction calculation

Weak r -process: 1st r -process peak $\sim Y_e \sim 0.25$ -0.35

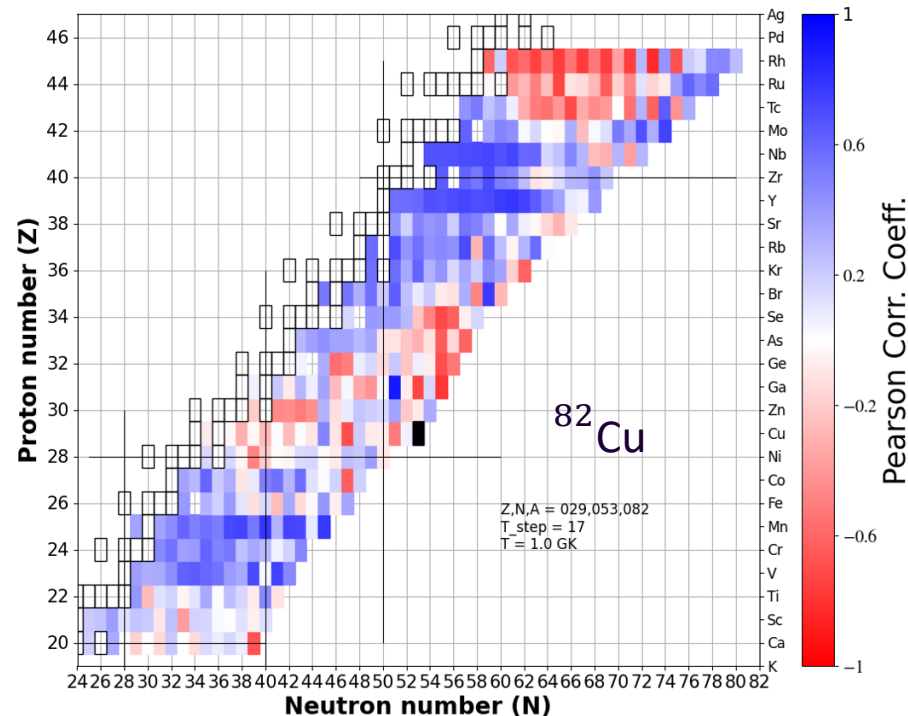
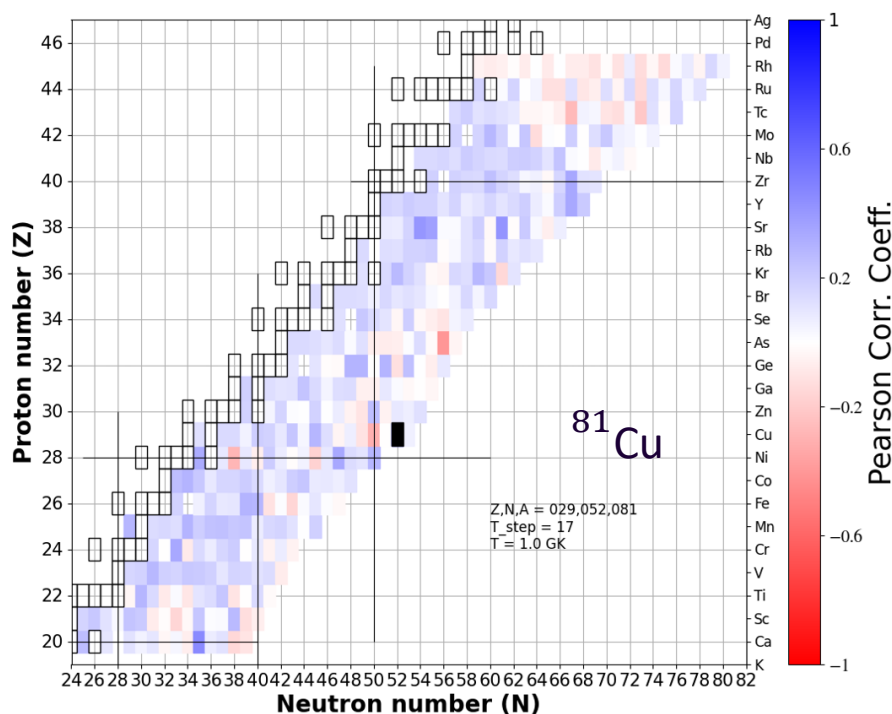


^{109}Ru (n, γ) rate



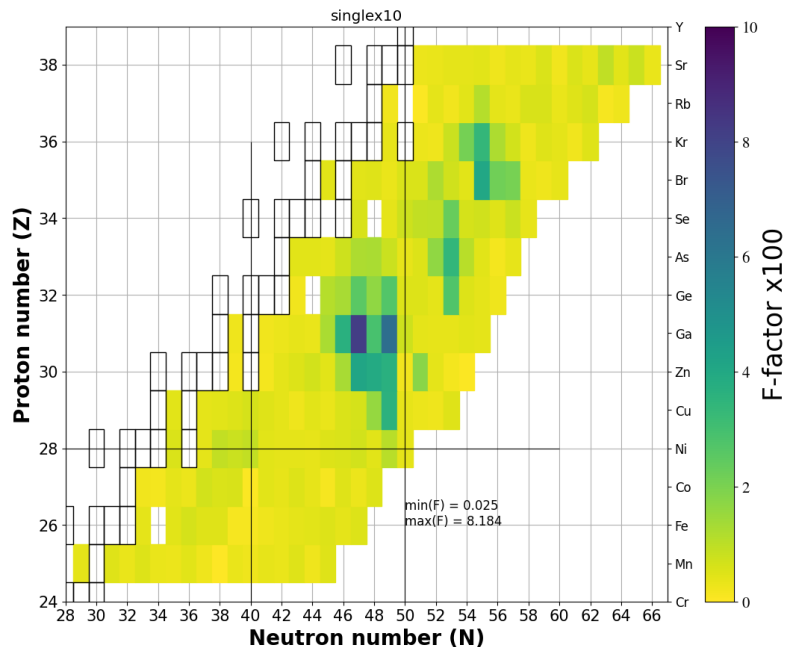
^{82}Ga (n, γ) rate

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Rate $\lambda_i \rightarrow 10 \lambda_i$



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Correlated rates $\lambda_j \rightarrow pcc \times 10 \lambda_j$

