Natural and artificial glucosinolates: Novel synthetic approaches

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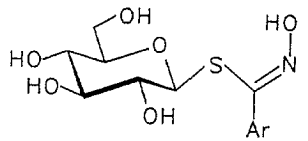
With regard to pure natural glucosinolates, the synthetic approach complements and competes with extractive methodologies: it shows particular efficacy in the case of indole glucosinolates (of increased relative amount in new rapeseed cultivars), whose chemistry and physiological impact on vertebrates still remain misunderstood.

In other respects, chemical synthesis opens original routes to totally artificial glucosinolates, useful especially as:

- internal standards **1** for chromatography analysis
- precursors (i.e. **2**) to radio-labelled glucosinolates aimed at metabolism studies
- models for the structural study of enzymic sites (alpha-glucosinolates **3**, glycosinolates...) or other biological purposes (aza-analogs **4**).



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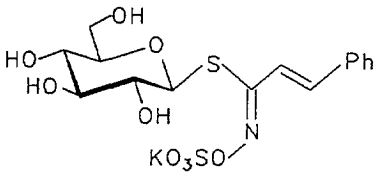

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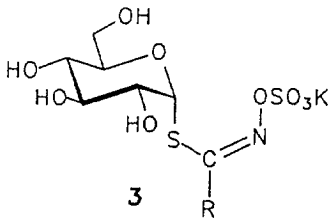

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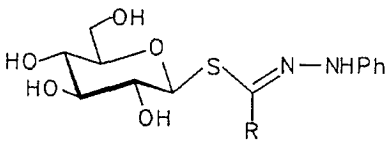

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