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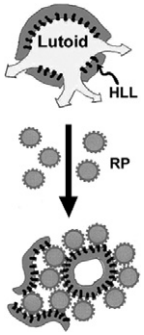
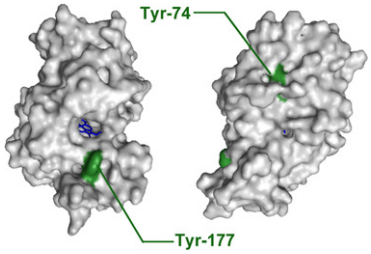
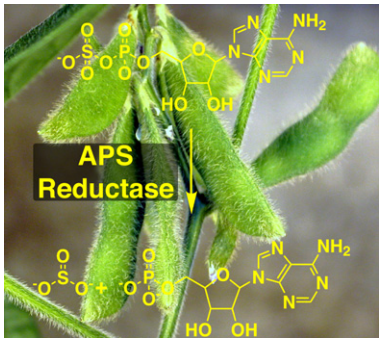
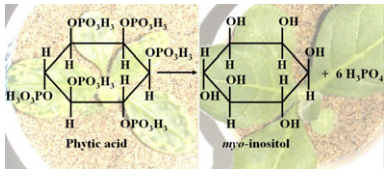


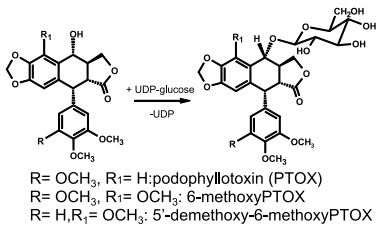


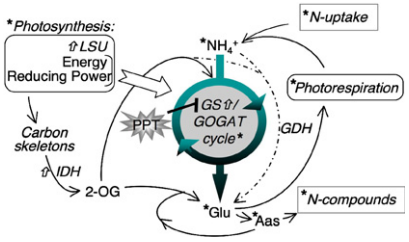
MOLECULAR GENETICS AND GENOMICS

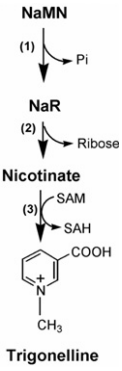




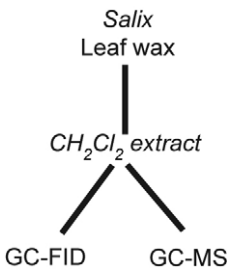
METABOLISM



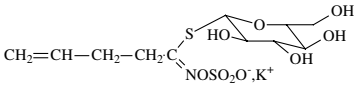




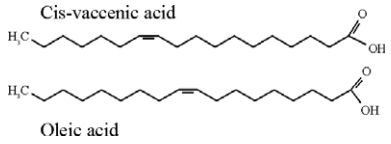
ECOLOGICAL BIOCHEMISTRY



CHEMOTAXONOMY

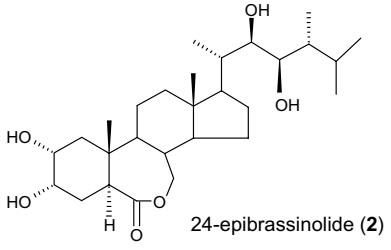


Aliphatic, indolyl and aromatic glucosinolates were identified from leaves of kale, cabbage, and Tronchuda cabbage varieties (*Brassica oleracea* sp.) grown in northwestern Spain. Sinigrin makes the major contribution of glucosinolates to kales, while glucobrassicin or glucoiberin do so to cabbage leaves. The influence of sowing date on glucosinolate content and the nutritional effects of these compounds glucosinolates are discussed.

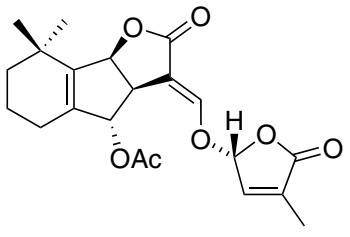


cis-Vaccenic acid (C18:1 (*n*-7)), an isomer of oleic acid (C18:1 (*n*-9)) is synthesized from palmitic acid (C16:0) via production of C16:1 (*n*-7) by a Δ9 desaturase and elongation by an elongase giving C18:1 (*n*-7). The fatty acid composition of 48 different varieties from 12 *Brassica* species was analyzed. Various amount of the C18:1(*n*-7), C20:1 (*n*-7) and C22:1(*n*-7) were found in all the tested species suggesting the elongation of the C18:1 (*n*-7) to longer chain fatty acids in the 12 *Brassica* species. These *Brassica* species could be grouped into three broad categories based on similarities in C18:1 (*n*-7)/(*n*-9) ratios. C20:1 (*n*-7) had a statistically significant positive effect on the levels of all monounsaturated fatty acids with chain length higher than 20 carbons.

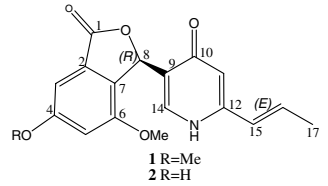
BIOACTIVE PRODUCTS



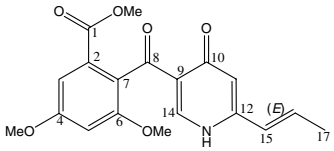
The influence of natural types of brassinosteroids on viability and proliferation on different cancer cell lines is reported. 28-Homocastasterone (**1**) and 24-epibrassinolide (**2**) were shown to be effective in a micromolar range, despite having minimal effects on normal cells.



Alectrol, a germination stimulant for root parasitic plants, was purified from root exudates of red clover (*Trifolium pratense* L.) and identified as a novel strigolactone, (+)-orobanchyl acetate, by 1D and 2D NMR spectroscopy and ESI- and EI-MS spectrometry. Orobanchyl acetate afforded an $[M–42]^+$ ion in EI-MS and thus had been recognized as an isomer of strigol.



1 R=Me
2 R=H



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* Corresponding author

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