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CHEMICAL COMPOSITION AND ANTIMICROBIAL ACTIVITY OF ESSENTIAL OIL FROM NARCISSUS (*NARCISSUS POETICUS* L.) AND ABSOLUTE FROM FOUR ROSE (*ROSA DAMASCENA* MILL.) CULTIVARS

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Abstract. The 28 components of *N. poeticus* essential oil and 37 of *R. damascena* Mill. absolutes of Moldovan origin were identified by GC-MS analysis. The major component of *N. poeticus* essential oil was *γ*-terpineol (52.62%). In addition to previously described terpene constituents: (*Z*)-*β*-ocimene (6.81%), eucalyptol (5.48%), (*E*)-*β*-ocimene (2.78%), *β*-caryophyllene (0.88%), *β*-myrcene (0.41%) - several compounds not previously described in *Narcissus* oil were identified, including lilac alcohols B and D (0.53 and 0.42%, respectively), lilac aldehydes A and C (0.43% and 0.78%, respectively), etc. The chemical constituents of *R. damascena* absolutes belong to several classes. The main constituent, as expected, is phenylethyl alcohol, the content of which varies from 59.85% to 78.17%. The terpene fraction is represented by several compounds like *β*-cytronellol (0.79–6.53%), nerol (5.89%), elemol (0.37%) and *α*-eudesmol (0.32%). The *in vitro* assessment of the essential oil from *N. poeticus* and *R. damascena* absolutes against four bacterial strains and two fungal species showed high antibacterial and antifungal activity, with effective concentrations ranging from 150 to 300 μg/mL for *N. poeticus* oil and from 300 to 600 μg/mL or *R. damascena* absolutes.

Keywords: *Narcissus poeticus* L. essential oil, *Rosa damascena* Mill. absolute, GC-MS analysis, antimicrobial assessment.

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