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2,4,6,4'-TETRAHYDROXYBENZOPHENONE IN *IRIS GERMANICA*

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During exhaustive chemical investigation of *Iris germanica* Linn., recently irisofone,¹ and irilone² have been reported. The present communication reports the presence of 2,4,6,4'-tetrahydroxybenzophenone. The compound was synthesized by Robinson³ but has not previously been isolated from natural sources. The EtOAc fraction of defatted MeOH extract of rhizomes (white flowered variety) on repeated column chromatography (silica gel, CHCl₃-acetone, 85:15) gave a light brown solid which on crystallization from ether furnished light pale brown crystals, m.p. 208–10°, C₁₃H₁₀O₅, M⁺ 246. Due to the difficulty in isolating the compound in a pure state the crude compound was acetylated (Ac₂O-H₂SO₄) to give colourless crystalline rosettes, m.p. 112°, C₂₁H₁₈O₉, IR (>C=O at 1680 cm⁻¹), NMR (100 MHz, CDCl₃) of tetra-acetate gave peaks at (δ) 7.0 s due to 3,5-H, 7.835 d (*J*_{AB} 9 Hz) 2',6'-H, 7.175 d (*J*_{AB} 9 Hz) 3',5'-H, and four acetate proton signals at 2.28 s and 1.89 s. MS gave M⁺ 414 (1%) and *m/e* at 372 (45), 330 (100), 288 (87), 246 (89), 153 (26) and 121 (24). Methylation (Me₂SO₄-K₂CO₃) of the compound gave colourless crystals m.p. 146.5°, C₁₇H₁₈O₅, M⁺ 302, identified as 2,4,6,4'-tetramethoxybenzophenone by direct comparison with the synthetic sample (obtained by condensing 2,4,6-trimethoxybenzene with anisic acid in presence of freshly fused ZnCl₂ and POCl₃ at 85° for 3 hr).

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¹ DHAR, K. L. and KALLA, ASHOK K. (1972) *Phytochemistry* **11**, 3097.

² DHAR, K. L. and KALLA, ASHOK K. (1973) *Phytochemistry* **12**, 734.

³ NISHIKAWA, H. and ROBINSON, R. (1922), *J. Chem. Soc.* **121**, 843.