

167.91–172.10 (4 × C) ppm; HRMS (M + Na⁺) calcd 433.0110/435, found 433.0112/435.

Peracetate of compound 2: ¹H-NMR (CDCl₃) δ, α-isomer, 2.07 (3 H, s), 2.10 (3 H, s), 2.11 (3 H, s), 2.17 (3 H, s), 4.19 (1 H, ddd, *J* = 2.5, 4.5, 10.5 Hz, H-5), 4.17 (1 H, dd, *J* = 2.5, 10.5 Hz, H-6), 4.23 (1 H, dd, *J* = 4.5, 12.5 Hz, H-6), 4.43 (1 H, dd, *J* = 2, 4 Hz, H-2), 5.21 (1 H, dd, *J* = 4, 9.5 Hz, H-4), 5.45 (1 H, t, *J* = 10 Hz, H-4), 6.32 (1 H, d, *J* = 2 Hz, H-1) ppm; ¹³C-NMR (CDCl₃) δ 20.60, 20.66, 20.75, 20.86, 47.77, 61.82, 65.54, 68.75, 71.25, 93.11, 167.20–171.90 (4 × C) ppm; β-isomer, 2.07 (3 H, s), 2.10 (3 H, s), 2.12 (3 H, s), 2.18 (3 H, s), 3.82 (1 H, ddd, *J* = 2.5, 5, 9.5 Hz, H-5), 4.13 (1 H, dd, *J* = 2.5, 12.5 Hz, H-6), 4.27 (1 H, dd, *J* = 5, 10.5 Hz, H-6), 4.60 (1 H, dd, *J* = 3.5, 1.5 Hz, H-2), 5.00 (1 H, dd, *J* = 4, 9.5 Hz, H-3), 5.43 (1 H, t, *J* = 9.5 Hz, H-4), 5.74 (1 H, d, *J* = 1.5 Hz, H-1) ppm; ¹³C-NMR (CDCl₃) δ 20.60–20.85 (4 × C), 51.05, 61.82, 65.27, 71.01, 73.04, 90.01, 167.20–171.90 (4 × C) ppm; HRMS (M + Na⁺) calcd 433.0110/435, found 433.0115.435.

Peracetate of compound 3: ¹H-NMR (CDCl₃) δ, β-isomer, 2.04 (3 H, s), 2.07 (3 H, s), 2.16 (3 H, s), 2.19 (3 H, s), 4.08 (1 H, dd, *J* = 9, 11.5 Hz, H-2), 4.10–4.15 (3 H, m, 2 × H-6 and H-5), 5.15 (1 H, dd, *J* = 3, 11.5 Hz, H-3), 5.35 (1 H, d, *J* = 3 Hz, H-4), 5.84 (1 H, d, *J* = 9 Hz, H-1) ppm; ¹³C-NMR (CDCl₃) δ 20.42, 20.52, 20.61, 20.66, 46.35, 60.89, 67.03, 71.94, 72.78, 93.43, 168.31–170.90 (4 × C) ppm; α-isomer, ¹³C-NMR (CDCl₃) δ 20.42–20.66 (4 × C), 44.39, 67.04, 67.69, 68.64, 69.39, 91.05, 167.01–170.86 (4 × C) ppm; HRMS (M + Na⁺) calcd 433.0110/435, found 433.0119.435.

Compound 4: ¹H-NMR (CDCl₃) δ, β-isomer, 1.12 (3 H, d, *J* = 6.5, CH₃), 3.45 (1 H, dd, *J* = 1, 3 Hz, H-4), 3.52 (1 H, dd, *J* = 3, 10.5 Hz, H-3), 3.58 (1 H, qd, *J* = 1, 6.5 Hz, H-5), 3.69 (1 H, dd, *J* = 8.5, 10.5 Hz, H-2), 4.45 (1 H, d, *J* = 8.5 Hz, H-1); ¹³C-NMR

(CDCl₃) δ, β-isomer 16.71, 58.04, 72.13, 73.56, 76.03, 98.78 ppm; α-isomer, 16.71, 54.71, 67.25, 71.13, 74.55, 94.20 ppm; HRMS (M + Na⁺) calcd 248.9738/251, found 248.9730/251.

Peracetate of compound 5: ¹H-NMR (CDCl₃) δ, β-isomer, 2.05 (3 H, s), 2.08 (3 H, s), 2.16 (3 H, s), 2.18 (3 H, s), 4.06 (1 H, dd, *J* = 9, 11.5 Hz, H-2), 4.07–4.15 (3 H, m, 2 × H-6 and H-5), 5.09 (1 H, dd, *J* = 3, 11.5 Hz), 5.39 (1 H, d, *J* = 3 Hz, H-4), 5.75 (1 H, d, *J* = 9 Hz, H-1) ppm; ¹³C-NMR (CDCl₃) δ, β-isomer, 20.21–22.55 (4 × C), 55.30, 60.87, 66.84, 71.86, 72.74, 93.53, 168.20–180.21 (4 × C) ppm; α-isomer, 20.1–22.55 (4 × C), 53.46, 61.04, 67.44, 68.67, 69.51, 90.94, 168.20–180.21 (4 × C) ppm; HRMS (M + Na⁺) calcd 389.0615/391, found 389.0610/391.

Peracetate of compound 6: ¹H-NMR (CDCl₃) δ, β-isomer, 2.04 (3 H, s), 2.07 (3 H, s), 2.12 (3 H, s), 2.17 (3 H, s), 4.06–4.17 (4 H, m, H-2, 2 × H-6 and H-5), 5.13 (1 H, dd, *J* = 3.5, 10 Hz, H-3), 5.25 (1 H, d, *J* = 3.5 Hz, H-4), 5.91 (1 H, d, *J* = 9.5 Hz, H-1) ppm; ¹³C-NMR (CDCl₃) δ, β-isomer, 20.5–22.50 (4 × C), 24.98, 60.94, 67.10, 72.16, 74.10, 94.15, 168.20–179.36 (4 × C) ppm; α-isomer, 20.5–22.50 (4 × C), 29.87, 60.63, 67.68, 68.31, 69.42, 92.16, 168.20–179.36 (4 × C) ppm; HRMS (M + Na⁺) calcd 480.9972, found 480.9999.

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Supplementary Material Available: ¹H NMR spectra of 1–6 (6 pages). This material is contained in many libraries on microfiche, immediately follows this article in the microfilm version of the journal, and can be ordered from the ACS; see any current masthead page for ordering information.

Additions and Corrections

Vol. 56, 1991

Shubh D. Sharma, Geza Toth, and Victor J. Hruby*. A Simple General Method for (Radio)iodination of a Phenylalanine

Residue in Peptides: Preparation of [D-Pen^{2,4},¹²⁵I-Phe⁴, D-Pen⁶]Enkephalin, a Peptide with Extraordinary Selectivity for δ-Opioid Receptors.

Page 4981. Since publication of our results, two other recent examples of radioiodination of phenylalanine residues using an alternative method have come to our attention. These include radioiodination of angiotensin and [D-Ala²]Enk by Bossé et al. [Bossé, R.; Neugelbauer, W.; Escher, E. In *Synthesis and Applications of Isotopically Labeled Compounds 1988*; Baillie, T. A., Jones, J. R., Eds.; Elsevier Sci. Publ.: Amsterdam, 1989; pp 761–766] and a second paper on the radioiodination of Phe-containing opioid peptides by Bossé and Escher [Bossé, R.; Escher, E. In *Peptides 1990*; Giralt, E., Andreu, D., Eds.; ESCOM Science Publishers: Leiden, 1991; pp 632–634].

Ronald P. W. Kesselmanns, Joannes B. P. A. Wijnberg,* and Aede de Groot*. Synthesis of All Stereoisomers of Eudesm-11-en-4-ol. 1. Stereospecific Synthesis of the Trans- and Cis-Fused Octahydro-8-hydroxy-4a,8-dimethyl-2(1H)-naphthalenones. Conformational Analysis of the Cis-Fused Compounds.

Page 7234, column 2, line 32, should read “9d(A) is reduced to less than 0.1%, ...”.