

Supplementary Material

The use of carbonyl group anisotropy effect in determination of the relative configuration of carbapenamams

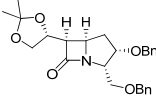
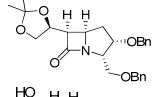
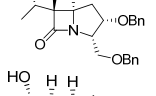
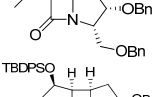
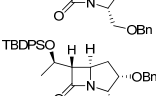
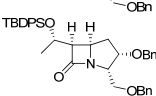
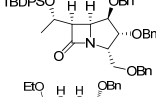
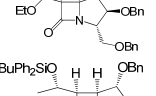
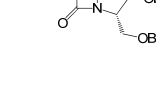

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Dedicated to Prof. Pierre Vogel on the occasion of his 70th anniversary

Table 2. continuation. Selected chemical shifts (in ppm) of other carbapenam

Entry	Carbapenam	H-2	CH ₂ -OBn	H-2 to H-5
16		4.03	3.62- 3.68	<i>anti</i>
17		4.08	3.63-3.65	<i>anti</i>
18		3.90	3.55–3.61, 3.65	<i>anti</i>
19		4.00	3.60, 3.65-3.70	<i>anti</i>
20		3.99	3.61, 3.67	<i>anti</i>
21		4.03	3.55, 3.62	<i>anti</i>
22		3.90	3.57, 3.64	<i>anti</i>
23		3.84	3.60-3.62	<i>anti</i>
24		4.52	3.34-3.51	<i>anti</i>
25		4.42	3.32, 3.39-3.44	<i>anti</i>

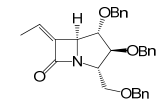
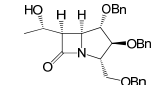
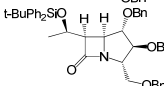
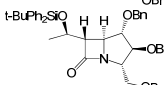
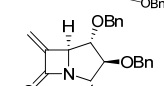
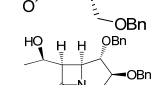
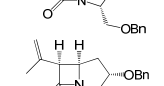
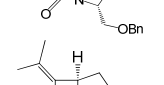
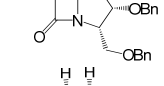
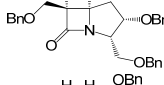
26		4.30	3.49, 3.54	<i>anti</i>
27		4.22	3.45-3.52	<i>anti</i>
28		4.15	3.43-3.49	<i>anti</i>
29		4.20	3.47-3.48	<i>anti</i>
30		4.44	3.36, 3.43	<i>anti</i>
31		4.24	3.44-3.51	<i>anti</i>
32		4.31	3.63, 3.67	<i>anti</i>
33		4.32	3.68, 3.72	<i>anti</i>
34		4.00	3.57-3.72	<i>anti</i>
35		4.35	3.30, 3.38	<i>anti</i>

Figure 4. continuation. The iso-chemical shielding surfaces (ICSS); red area represents deshielding and blue area represents shielding regions with cutoff ± 0.3 ppm (the NICS matrixes for compounds with ethylene substituents are subtracted from the NICS for carbonyl substituted compounds).

