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Heterocycles



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P-2

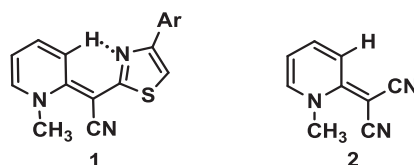
CH...N Intramolecular Hydrogen Bonding in Some Pyridine and Indolizine-Based Heterocyclic Systems

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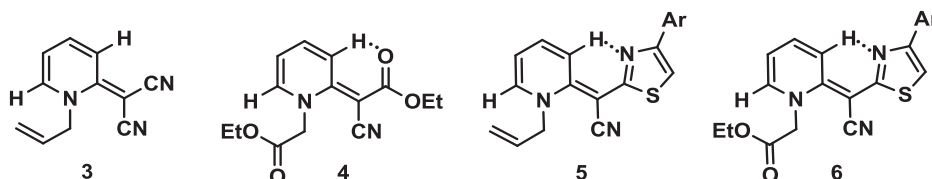
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Quantum chemical calculations of compounds **1**, **2** were carried out to confirm the presence of intramolecular hydrogen CH...N bonding in compounds **3-11**. Manifestations of such interactions in ¹H NMR spectra are demonstrated. The possible π -stereoselectivity in preparation of compounds **3-6** (Ad_NE) and their subsequent cyclization to indolizine systems **7-11** are discussed.



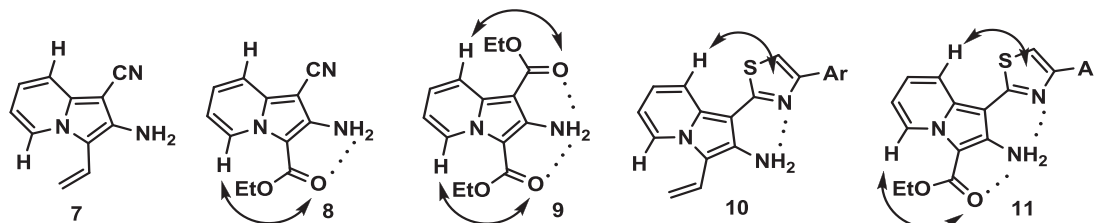
Ar = C₆H₅ (a), 4-ClC₆H₄ (b), 2-CH₃OC₆H₄ (c), 3-NO₂C₆H₄ (d)

Compound	1a	1b	1c	1d	2
C ³ H	8.57	8.57	8.56	8.57	7.16



Ar = C₆H₅ (a), 4-ClC₆H₄ (b), 4-CH₃OC₆H₄ (c), 4-NO₂C₆H₄ (d)

Compound	3	4	5a	5b	5c	5d	6a	6b	6c	6d
C ³ H	7.27	8.10	8.73	8.70	8.71	8.74	8.67	8.65	8.65	8.70
C ⁶ H	7.90	8.10	7.81	7.83	7.79	7.88	7.87- 7.95	7.87- 7.95	7.82- 7.88	7.95



Ar = C₆H₅ (a), 4-ClC₆H₄ (b), 4-CH₃OC₆H₄ (c), 4-NO₂C₆H₄ (d)

Compound	7	8	9	10a	10b	10c	10d	11a	11b	11c	11d
C ⁸ H	7.34	7.41	7.94	7.74	7.73	7.73	7.77	7.81	7.83	7.79- 7.83	7.85
C ⁵ H	8.32	9.24	9.32	8.35	8.35	8.35	8.48	9.37	9.39	9.36	9.38
NH ₂	5.31	6.32	6.48	6.18	6.14	6.19	6.26	7.07	7.05	7.05	7.10