

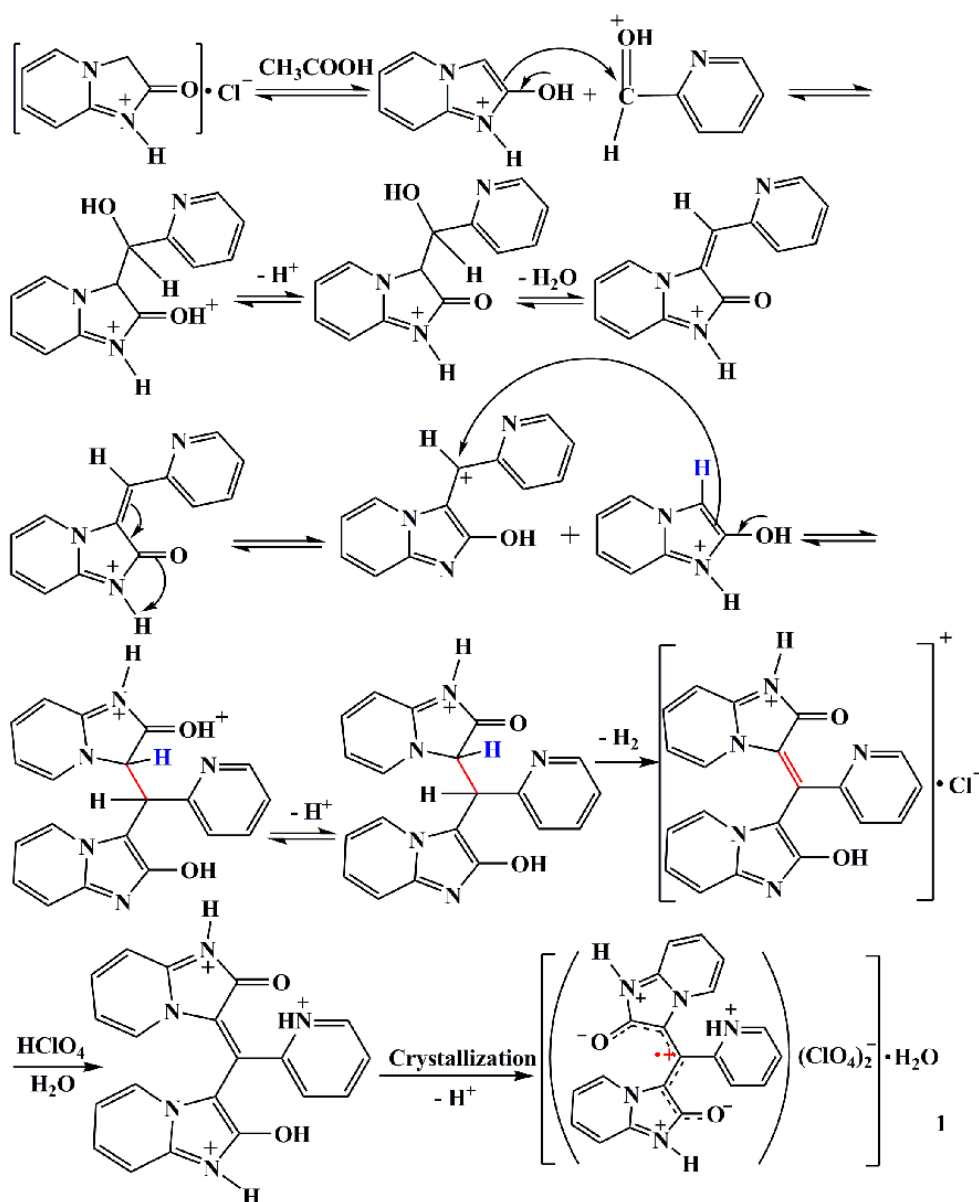
Electronic Supplementary Information

Positional isomerism in triarylmethyl carbocation radical salts: position isomeric effects, crystal structures and properties

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Scheme S1 Proposed reaction mechanism.

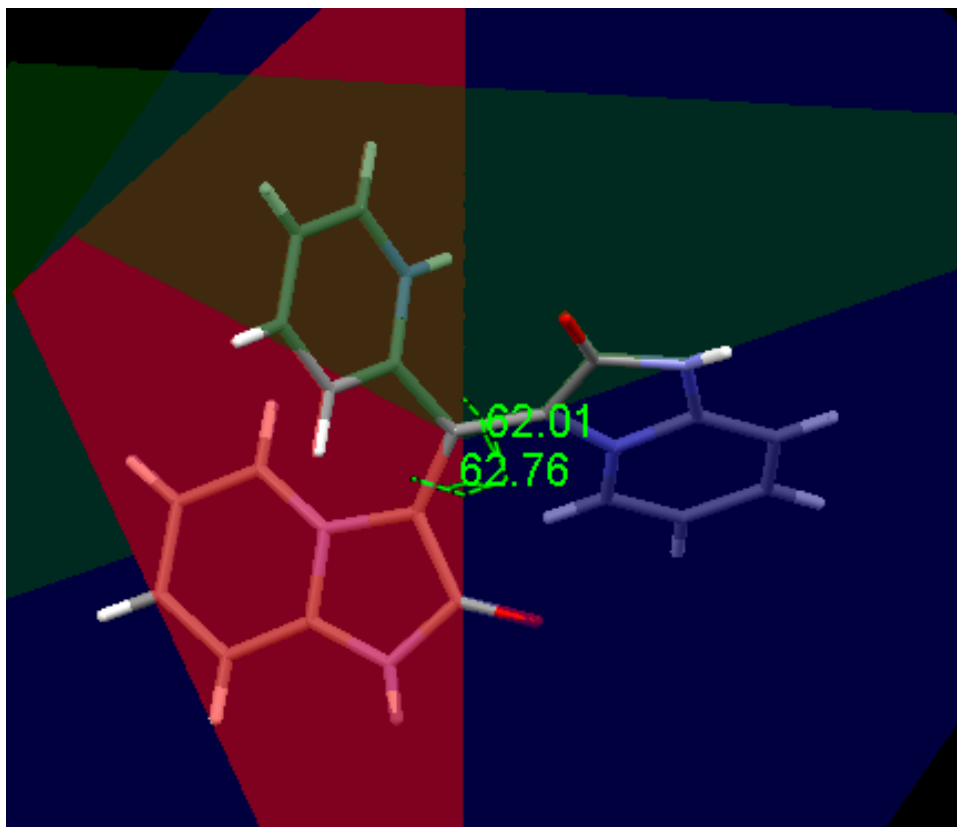


Fig. S1 Dihedral angles among two imidazo[1,2-*a*]pyridine rings and one pyridine ring for **1**.

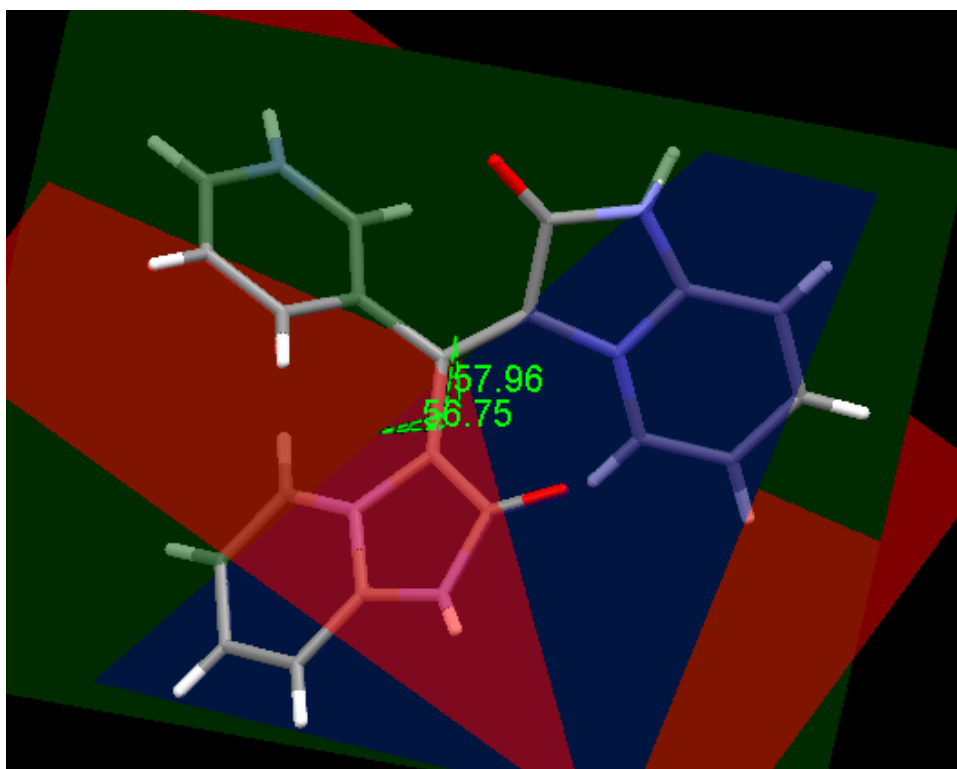


Fig. S2 Dihedral angles among two imidazo[1,2-*a*]pyridine rings and one pyridine ring for **2**.

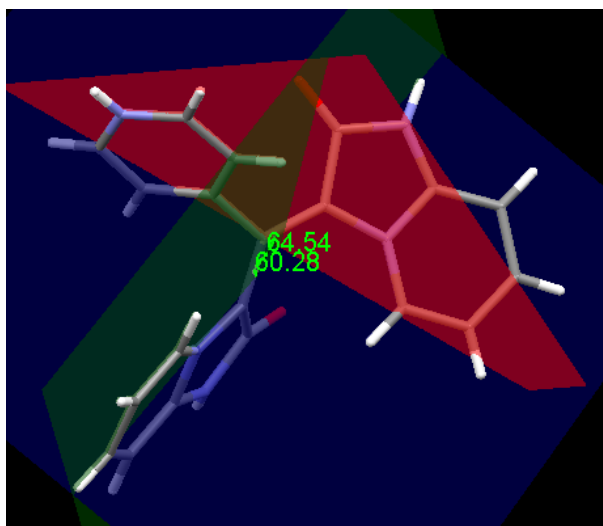


Fig. S3 Dihedral angles among two imidazo[1,2-*a*]pyridine rings and one pyridine ring for **3**.

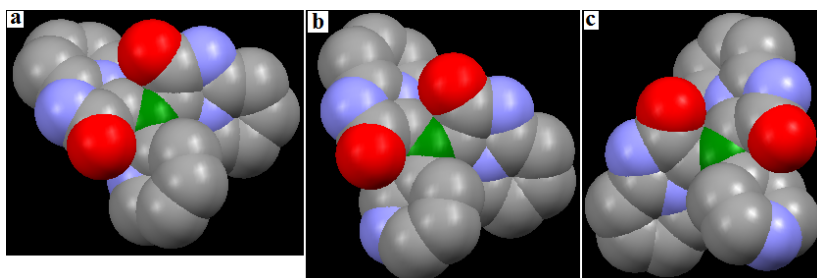


Fig. S4 The space-filling representation for **1** (a), **2** (b) and **3** (c): showing the high steric shielding of the central carbon atom (green).

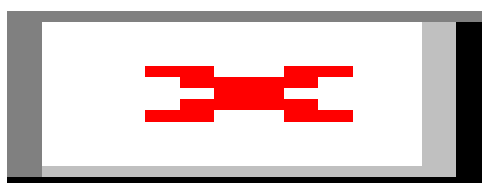


Fig. S5 ORTEP diagrams with ellipsoids drawn at 50% probability for triarylmethyl carbocation radical moiety in **1** (a, selected bond lengths: C8–C7 of 1.395(5) Å, C8–C9 of 1.386(5) Å, and C8–C16 of 1.487(5) Å; selected bond angles: C7–C8–C9 of 123.5(3)°, C7–C8–C16 of 119.9(3)°, and C9–C8–C16 of 115.9(3)°), **2** (b, selected bond lengths: C8–C7 of 1.395(4) Å, C8–C9 of 1.387(5) Å, and C8–C16 of 1.487(4) Å; selected bond angles: C7–C8–C9 of 122.7(3)°, C7–C8–C16 of 119.8(3)°, and C9–C8–C16 of 117.2(3)°) and **3** (c, selected bond lengths: C8–C7 of 1.417(4) Å, C8–C9 of 1.372(5) Å, and C8–C16 of 1.494(4) Å; selected bond angles: C7–C8–C9 of 124.0(3)°, C7–C8–C16 of 118.8(3)°, and C9–C8–C16 of 116.8(3)°).

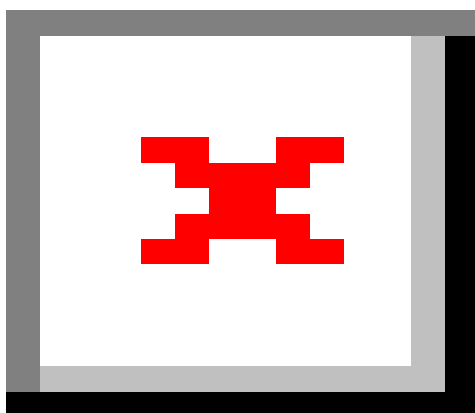


Fig. S6 The PXRD patterns of **1**.

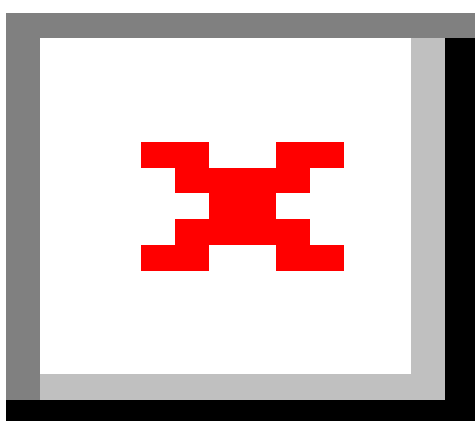


Fig. S7 The PXRD patterns of **2**.

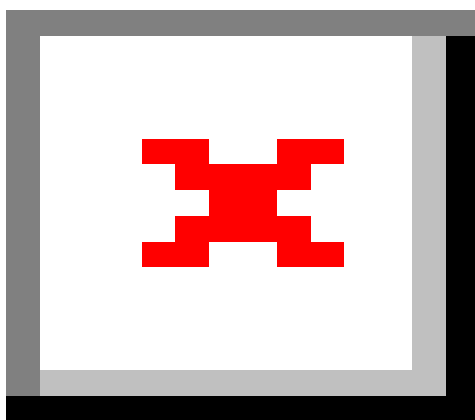


Fig. S8 The PXRD patterns of **3**.

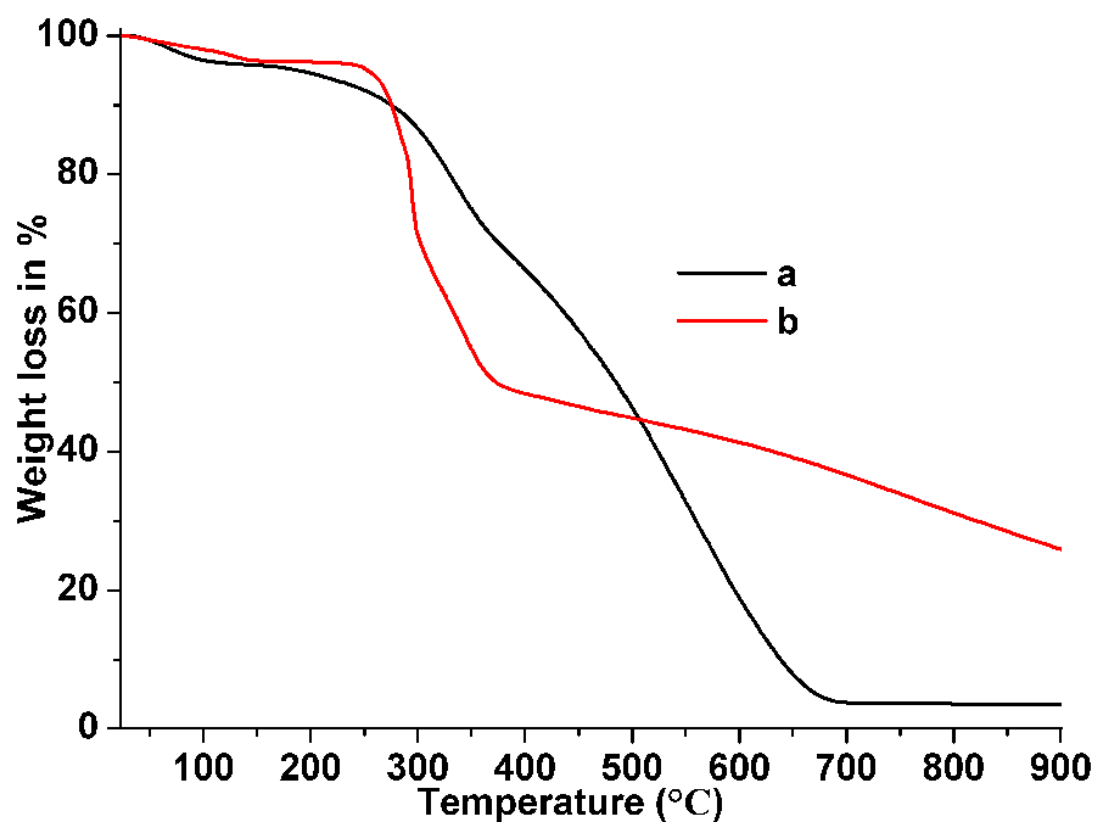


Fig. S9 TGA curves for triarylmethyl carbocation radical salts **1** (a) and **2** (b).