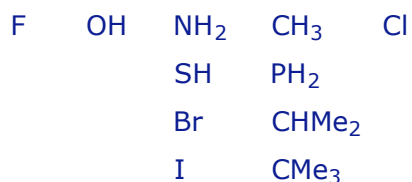


APPENDIX 4 Bioisosteres

CLASSICAL BIOISOSTERIC GROUPS

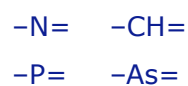
1 Univalent atoms or groups



2 Bivalent atoms or groups



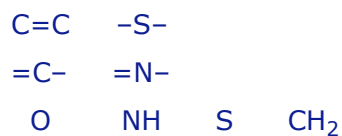
3 Trivalent atoms or groups



4 Tetravalent atoms

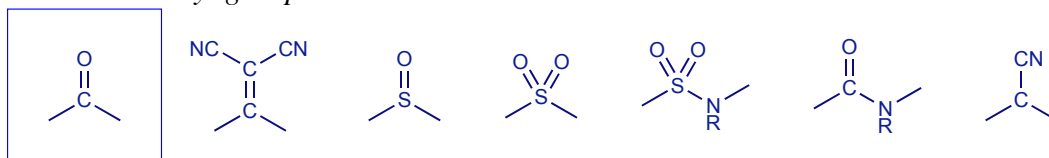


5 Ring equivalents

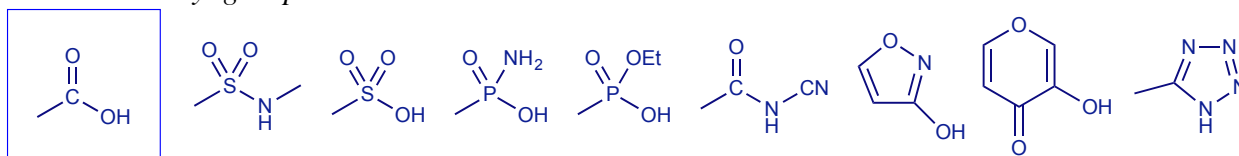


NON-CLASSICAL BIOISOSTERIC GROUPS

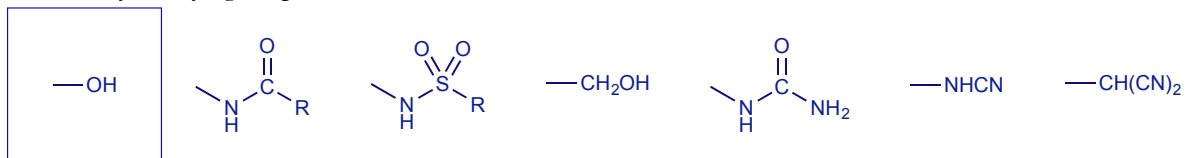
1 Carbonyl group



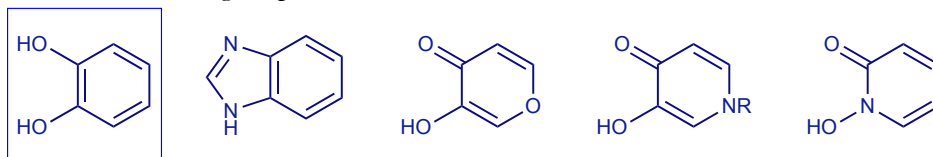
2 Carboxyl group



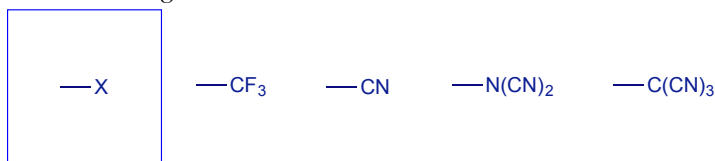
3 *Hydroxyl group*



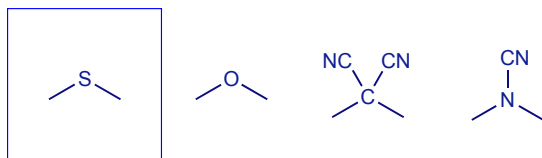
4 *Catechol group*



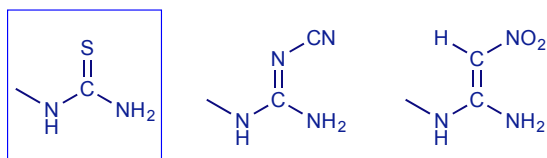
5 *Halogens*



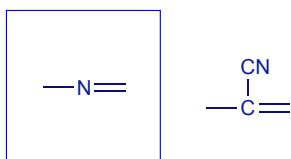
6 *Thioether*



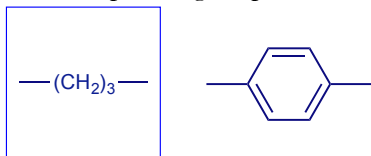
7 *Thiourea*



8 *Azomethine*



9 *Spacer group*



10 *Hydrogen*

