

Definition In medicinal chemistry, bioisosteres are chemical substitutes or combinations with similar physical or chemical properties that produce substantially similar biological properties to another chemical compound. A bioisoster is used to reduce toxicity, alter bioavailability, or modify the activity of a lead compound, and may alter lead metabolism. In drug design, the purpose of one bio-isosteric exchange for another is to enhance the biological or physical properties of the compound without making significant changes to the chemical structure. In 1970, Alfred Burger classified and subdivided bioisosteres into two broad categories: 1. The main use of this term and its techniques is related to the pharmaceutical sciences. Classic Bioisosteres 1. Non Classic Bioisosteres