

BODIPY- and porphyrin-based sensors for recognition of amino acids and their derivatives.

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Rok wydania

2020

Czasopismo

Molecules

Numer woluminu

25

Strony

4523/1-4523/28

DOI

10.3390/molecules25194523

Kolekcja

Naukowa

Język

Angielski

Typ publikacji

Artykuł

Streszczenie

Molecular recognition is a specific non-covalent and frequently reversible interaction between two or more systems based on synthetically predefined character of the receptor. This phenomenon has been extensively studied over past few decades, being of particular interest to researchers due to its widespread occurrence in biological systems. In fact, a straightforward inspiration by biological systems present in living matter and based on, e.g., hydrogen bonding is easily noticeable in construction of molecular probes. A separate aspect also incorporated into the molecular recognition relies on the direct interaction between host and guest with a covalent bonding. To date, various artificial systems exhibiting molecular recognition and based on both types of interactions have been reported. Owing to their rich optoelectronic properties, chromophores constitute a broad and powerful class of receptors for a diverse range of substrates. This review focuses on BODIPY and porphyrin chromophores as probes for molecular recognition and chiral discrimination of amino acids and their derivatives.

Słowa kluczowe

molecular recognition, covalent recognition, chiral discrimination, BODIPY, porphyrin tweezers

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Adres publiczny

<http://dx.doi.org/10.3390/molecules25194523>

Strona internetowa wydawcy

<http://www.mdpi.com/journal/metals>