





# Document details - Green synthesis of naphtho[2,3-f]quinolin-13-one and naphtho[2,3-a]acridin-1(2H)-one derivatives catalyzed by heteropoly acid supported montmorillonite K-10 clay

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## Green synthesis of naphtho[2,3-f]quinolin-13-one and naphtho[2,3-a]acridin-1(2H)-one derivatives catalyzed by heteropoly acid supported montmorillonite K-10 clay(Article)

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### Abstract

Herein, synthesis of a series of naphtho[2,3-f]quinolin-13-one and naphtho[2,3-a]acridin-1(2H)-one derivatives directly by one-pot multi-component reaction of 1,3-dicarbonyl compounds (1,3-indanedione/1,3-cyclohexanedione), 2-aminoanthracene/2-naphthylamine and various substituted aldehydes under solvent-free conditions using heteropoly-11-molybdo-1-vanadophosphoric acid supported on montmorillonite K-10 clay catalyst (10% PVMoK-10) is reported. The successful formation of naphtho[2,3-f]quinolin-13-one and naphtho[2,3-a]acridin-1(2H)-one derivatives was confirmed by various spectroscopic techniques. This study offers a green approach for the synthesis of novel quinolinone derivatives. © 2019, © 2019 Taylor & Francis Group, LLC.

### Author keywords

1,3-Dicarbonyl compounds [heteropoly acid](#) [montmorillonite K-10 clay](#) [naphtho\[2,3-a\]acridin-1\(2H\)-one](#)  
[naphtho\[2,3-f\]quinolin-13-one](#)

### Indexed keywords

EMTREE drug terms: [1,3 cyclohexanedione](#) [1,3 indandione derivative](#) [2 aminoanthracene](#) [2 naphthylamine](#)  
[acridine](#) [aldehyde derivative](#) [hexane](#) [montmorillonite](#)  
[naphtho\[2,3 a\]acridin 1\(2h\) one derivative](#) [naphtho\[2,3 f\]quinolin 13 one](#)  
[phosphoric acid derivative](#) [quinoline derivative](#) [unclassified drug](#)

EMTREE medical terms: [Article](#) [catalysis](#) [catalyst](#) [green chemistry](#) [mass spectrometry](#) [one pot synthesis](#)  
[polymerization](#) [reaction analysis](#)

### Chemicals and CAS Registry Numbers:

2 aminoanthracene, 613-13-8; 2 naphthylamine, 91-59-8; acridine, 260-94-6; hexane, 110-54-3; montmorillonite, 1318-93-0, 61029-13-8

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[Funding text](#)

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