SUPPLEMENTARY MATERIAL TO

Synthesis and Antimicrobially Activities of Coumarin-3-Carboxamide Derivatives

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EXPERIMENTAL

*Procedure for the preparation of coumarin-3-carboxylic acid (**1**)* [26]

2-hydroxybenzaldehyde (10 mmol), malonic acid (15 mmol) and KSF (1 g) in water (3.3 mL) were heated at reflux for 24 h. After cooling to room temperature, the water was removed by Buchner filtration and the solid was heated in methanol (60 mL) for 5 min. The catalyst was removed by Buchner filtration and washed with methanol (10 mL). The solvent was distilled off and the crude product was purified by crystallization from ethyl acetate or methanol.

*Procedure for the preparation of coumarin-3-carboxylic acid chloride (**2**)* [27]

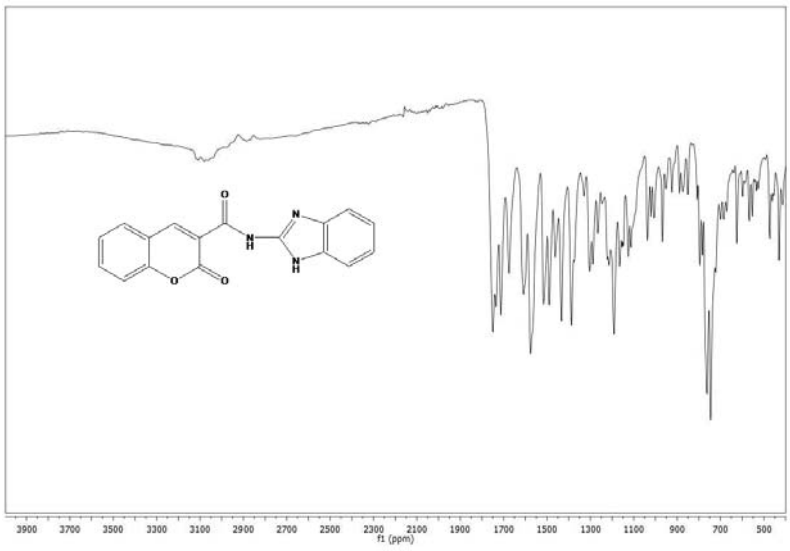
Coumarin-3-carboxylic acid (1 mmol) was added to thionyl chloride (5 ml) and the mixture was refluxed for 3-5 h. After completion of the reaction, thionyl chloride was removed with simple distillation to give coumarin-3-carbonyl chloride. The crude product was used directly without further purification.

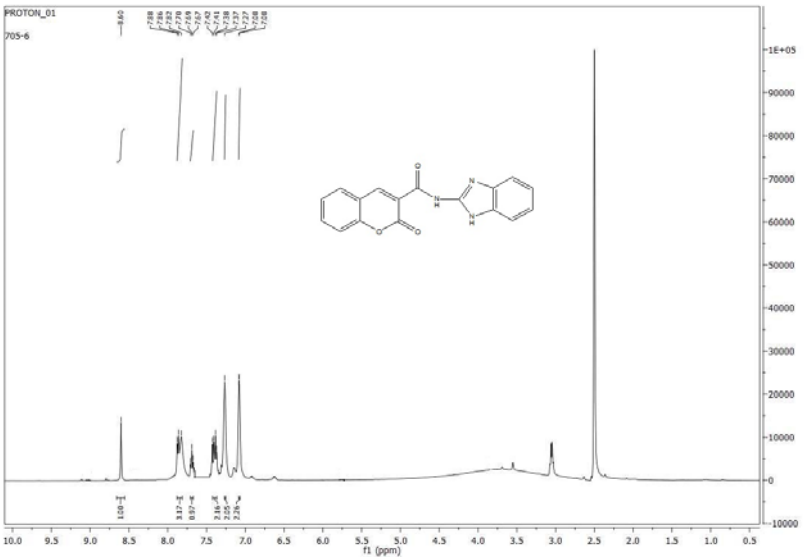
*Procedure for the preparation of coumarin-3-carboxamide derivatives (**3a-i**)* [28]

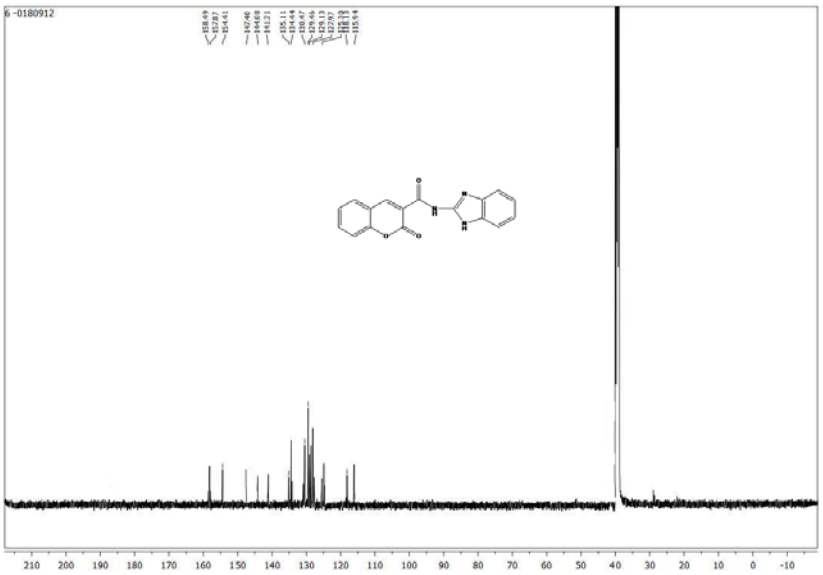
0.005 mol of Coumarin-3-carboxylic acid chloride, 0.005 mol amine and 0.07 ml of triethylamine were dissolved in 10 ml of dry dichloromethane. The mixture was stirred at room temperature for 4 hours. The reaction was terminated by checking by TLC. The precipitate formed was filtered and purified by crystallization or colon chromatography

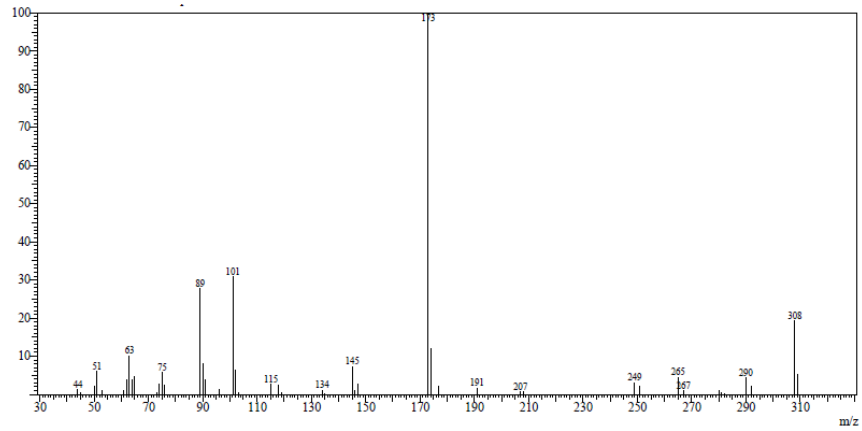
SPECTRAL DATAS OF THE NEW COUMARIN-3-CARBOXAMIDE DERİVATİVES (**3c, 3i**)

IR, ^{1}H NMR, ^{13}C NMR and GC-MS spectras, respectively of *N-(1H-benzoimidazol-2-yl)-2-oxo-2H-chromene-3-carboxamide* (**3c**):

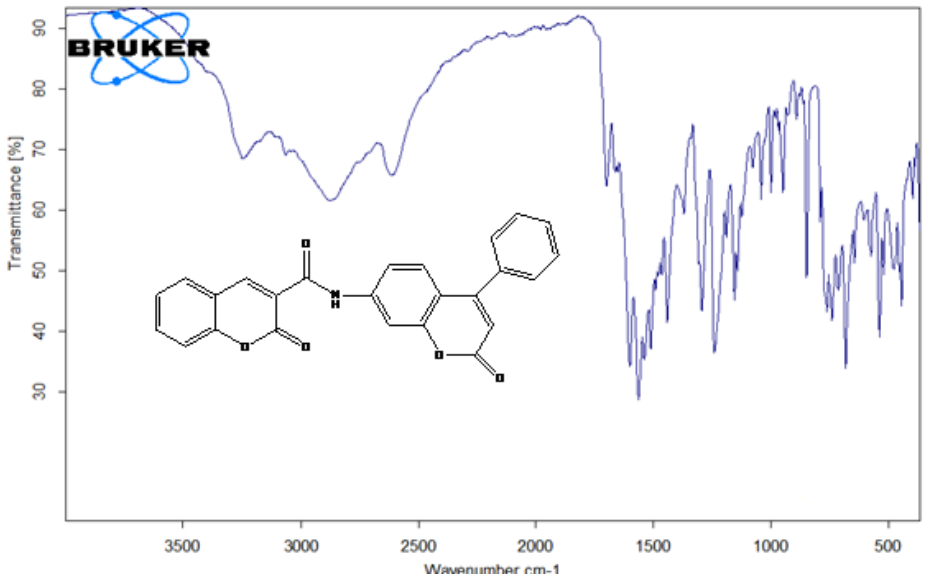


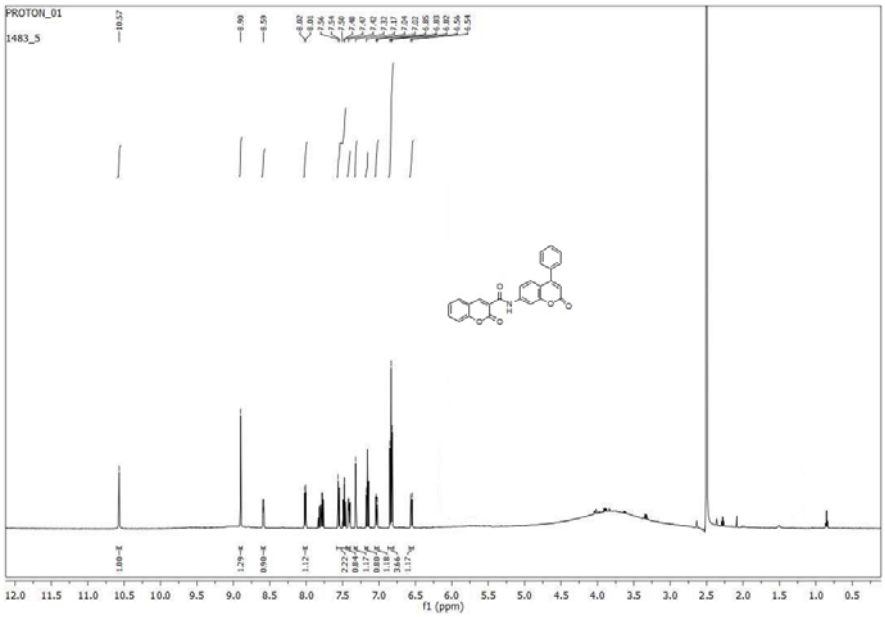

PROTON_01
705-6
f1 (ppm)

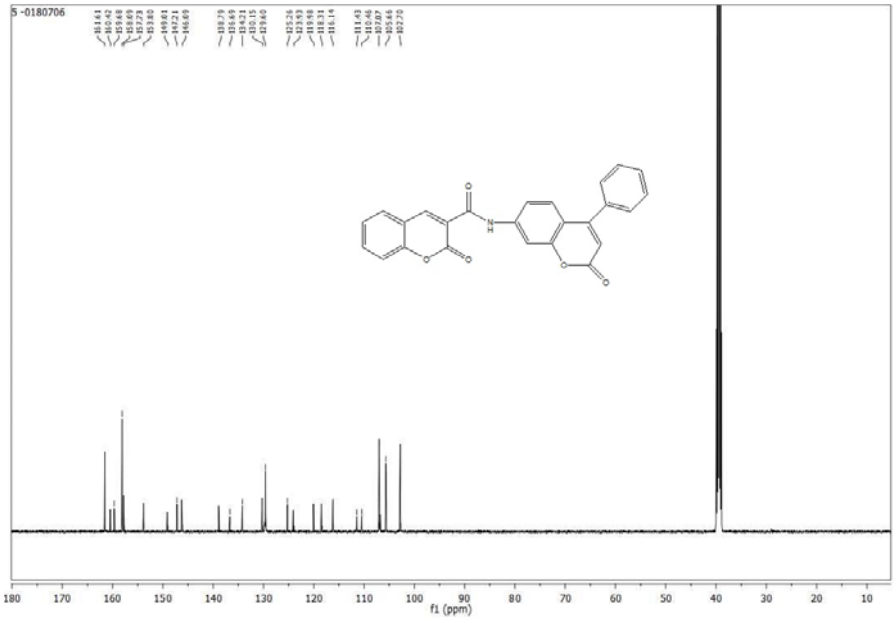

6 -0180912


173
89
101
308
63
51
75
145
115
134
191
207
249
265
290
44
267
m/z

IR, ^{1}H NMR, and ^{13}C NMR spectras, respectively of *2-oxo-N-(2-oxo-4-phenyl-2H-chromen-7-yl)-2H-chromene-3-carboxamide* **(3i)**:



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161.61
160.42
159.68
158.69
155.29
153.80
140.61
134.21
146.69
130.79
130.69
124.31
120.15
119.40
125.26
123.93
119.56
118.31
116.14
111.43
110.46
107.25
105.66
100.70
NH
O
O
O
O
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
f1 (ppm)