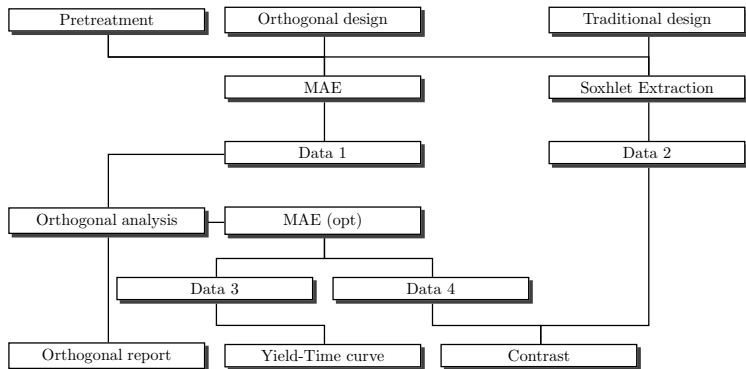


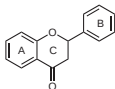
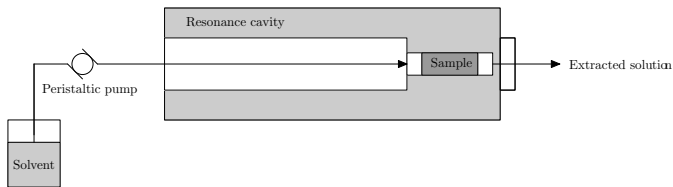
Microwave-Assisted Extraction and Orthogonal Analysis in Drug Extraction

LI Yi

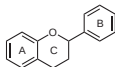
Flowchart



Microwave-Assisted Extraction



2-phenylchromone



The nuclear parent of the flavonoids

The main regarding factors

- The concentration of the solvent A
- The flow rate of the solvent B
- The power of the microwave cavity C

Orthogonal Analysis

Table: Orthogonal analysis ($L_{27}3^{13}$)

Items	Factors			Interactions			Error
	A	B	C	$A \times B$	$A \times C$	$B \times C$	
K_1	1.36	1.43	1.56	3.48	3.19	3.20	—
K_2	1.82	1.40	1.45	3.48	3.17	3.24	—
K_3	1.58	1.93	1.74	6.96	3.16	3.08	—
Range	0.460	0.526	0.291	3.120	0.035	0.516	—
Q_i	0.012	0.020	0.0048	0.0161	0.0012	0.0023	0.0052
f_i	2	2	2	4	4	4	8
Q_i/f_i	0.0060	0.010	0.0024	0.0040	0.00030	0.00058	0.00065
F	9.23	15.1	3.69	6.15	0.46	0.92	—
Significance	VSE	VSE	GE	SE	—	—	—
Best factor level	A_2	B_3	C_3	A_2B_3	—	—	—

Thank you !