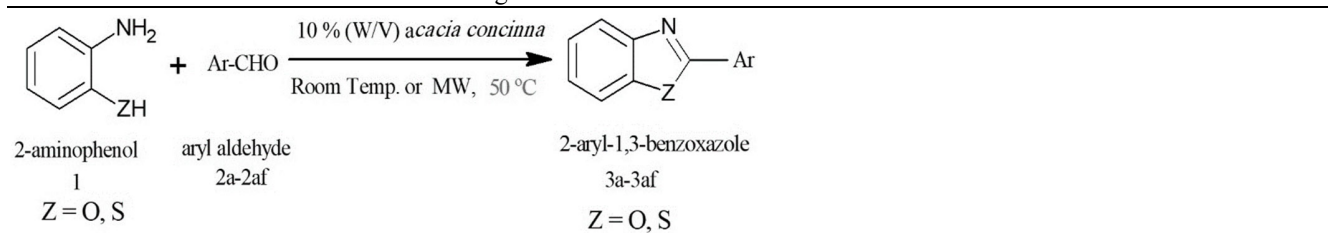


Table 3. Synthesis of 2-arylbenzoxazole by *Acacia concinna* catalyzed reaction of 2-aminophenol with aryl aldehydes under microwave irradiation and conventional heating conditions.^a

Entry	Aryl aldehyde (2)	Z	Time (min)	Product ^b	Yield ^c (%)	m.p.(°C)		Ref.
						Found	Reported	
1	Benzaldehyde	O	30 (4)	3a	78 (92)	98-100	100-102	[35]
2	Benzaldehyde	S	30 (4)	3b	72 (93)	108-110	110-112	[36]
3	4-Methybenzaldehyde	O	50 (5)	3c	70 (86)	114-116	116-118	[37]
4	4-Methybenzaldehyde	S	45 (4)	3d	75 (88)	80-82	82-84	[37]
5	3-MethoxyBenzaldehyde	O	55 (5)	3e	67 (85)	70-71	71.3-73.8	[38]
6	3-MethoxyBenzaldehyde	S	40 (5)	3f	70 (82)	98-100	100-102	[38]
7	4-MethoxyBenzaldehyde	O	55 (5)	3g	65 (86)	100-102	103-105	[39]
8	4-MethoxyBenzaldehyde	S	40 (5)	3h	70 (89)	118-120	118-120	[36]
9	2,5-Dimethoxy-benzaldehyde	O	40 (5)	3i	70 (88)	70-72	70-72	[40]
10	2,5-Dimethoxy-benzaldehyde	S	45 (4)	3j	65 (85)	104-106	104-106	[41]
11	4-Hydroxybenzaldehyde	O	40 (4)	3k	70 (91)	280-282	282-284	[42]
12	4-Hydroxybenzaldehyde	S	40 (5)	3l	75 (95)	226-228	228-230	[40]
13	2-Hydroxybenzaldehyde	O	50 (5)	3m	72 (93)	114-116	120-122	[43]
14	2-Hydroxybenzaldehyde	S	45 (4)	3n	75 (95)	130-132	130-132	[36]
15	4-Nitrobenzaldehyde	O	40 (4)	3o	75 (93)	263-265	268-270	[38]
16	4-Nitrobenzaldehyde	S	35 (3)	3p	80 (95)	224-226	222-224	[36]
17	4-Cynobenzaldehyde	O	45 (4)	3q	73 (92)	96-98	101-103	[37]
18	4-Cynobenzaldehyde	S	45 (3)	3r	80 (90)	164-166	164-166	[37]
19	4-Chlorobenzaldehyde	O	40 (4)	3s	68 (91)	150-152	153-154	[37]
20	4-Chlorobenzaldehyde	S	35 (4)	3t	72 (95)	110-112	112-114	[44]
21	4-Bromobenzaldehyde	O	40 (4)	3u	72 (92)	160-162	162-165	[45]
22	4-Bromobenzaldehyde	S	30 (3)	3v	75 (90)	128-130	128-130	[44]
23	2-Nitrobenzaldehyde	O	35 (4)	3w	76 (92)	268-270	270-272	[46]
24	2-Nitrobenzaldehyde	S	30 (3)	3x	82 (93)	134-136	136-138	[47]
25	2-Furfural	O	45 (5)	3y	69 (88)	86-88	89-90	[46]
26	2-Furfural	S	50 (6)	3z	75 (90)	98-100	100-102	[48]
27	Thiophene-2-carboxaldehyde	O	50 (5)	3aa	68 (86)	104-106	108	[46]
28	Thiophene-2-carboxaldehyde	S	55 (6)	3ab	75 (90)	96-98	96-98	[48]

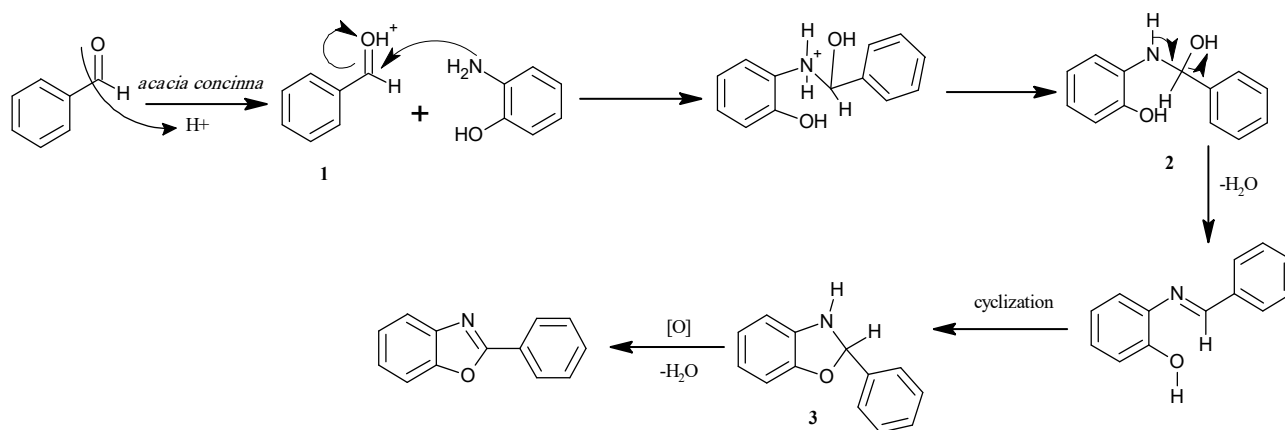
Table 3. (Continued).

29	4-Hydroxy-3,5-dimethoxybenzaldehyde	O	50 (6)	3ac	72 (85)	210-212	203-204	[53]
30	4-Hydroxy-3,5-dimethoxybenzaldehyde	S	45 (5)	3ad	75 (92)	178-180	153.5-156.1	[54]
31	3-Ethoxy-4-hydroxybenzaldehyde	O	35 (4)	3ae	65 (82)	150-152	Novel	-
32	3-Ethoxy-4-hydroxybenzaldehyde	S	40 (4)	3af	75 (88)	126-128	125.6-126.5	[54]

^aReaction condition: 1 (1 mmol), 2a-2af (1 mmol) and catalyst 10 % (w/v) under microwave irradiation and conventional condition. The reaction time and yields under microwave irradiation condition are shown in the parenthesis.

^bProducts were characterized by their physical properties, their comparison with authentic samples, and their spectral (¹H NMR, ¹³C NMR, IR, MS) analysis.

^cIsolated yields.

**Scheme 2:** Plausible mechanistic pathway for the synthesis of 3a.**Table 4.** Comparison of *Acacia concinna* with variety of catalysts for the synthesis of 3a.

No.	Catalyst used	Amount of catalyst	Temp (°C)	Time (min)	Yield (%)	Ref.
1	<i>Acacia concinna</i>	10 % (W/V)	50 (MW)	4	92	This Work
2	<i>p</i> -TSA	20 % mol	150	10	82	[49]
3	Iodine 190	15 % mol	140	15	87	[50]
4	Merrifield resin	25 % mol	150	60	80	[51]
5	PS-PPh ₃ resin	20% mol	150	15	94	[52]
6	NaCN	100 % mol	r.t.	60	92	[10]
7	SBA-Pr-SO ₃ H	2.0 g	70	480	91	[11]
8	PhB(OH) ₂ /KCN	10 % mol	r.t.	240	48	[12]
9	<i>tert</i> -butyl hypochloride	10 % mol	70	60	85	[13]
10	H ₃ PO ₃	15 % mol	110	10	90	[14]

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