tag	accuracy	f1 score	accuracy for unknown words	accuracy for known words	number of unknown words	number of known words
A (إسم)	96.96 %	95.99 %	93.33 %	97.21 %	15	215
B (رقم)	100.0 %	100.0 %	100.0 %	100.0 %	2	186
C (إسم معرف)	83.44 %	42.47 %	55.56 %	86.9 %	18	145
D (إضافة)	78.18 %	80.12 %	10.53 %	86.99 %	19	146
E (منعوت)	98.46 %	65.91 %	83.33 %	99.19 %	6	124
F (نعت)	82.48 %	54.32 %	46.15 %	86.29 %	13	124
G (حرف جر)	100.0 %	100.0 %	NULL	100.0 %	0	59
H (إسم مجرور)	75.0 %	73.33 %	42.86 %	88.24 %	14	34
I (وحدة قيس)	100.0 %	100.0 %	100.0 %	100.0 %	2	92
J (واو العطف)	97.5 %	49.37 %	NULL	97.5 %	0	40
K (فعل مبني للمجهول)	86.21 %	46.3 %	100.0 %	84.0 %	8	50
L (المفعول المطلق)	NULL	NULL	NULL	NULL	0	0
M (أداةُ عَطْفٌ غير واو العطف)	91.67 %	47.83 %	NULL	91.67 %	0	12
.	100.0 %	100.0 %	NULL	100.0 %	0	780

Table 1: Performances for each tag using our ingredient extractor for fold 9 with $\lambda = 4$ when accuracy is 100% on first layer

tag	accuracy	f1 score	accuracy for unknown words	accuracy for known words	number of unknown words	unknown words percentage
0	95.78 %	67.91 %	61.11 %	97.38 %	78	9.67 %
1	94.34 %	66.51 %	68.85 %	95.87 %	107	13.26 %
2	94.98 %	67.32 %	67.96 %	96.44 %	88	10.9 %
3	95.83 %	67.71 %	62.65 %	97.25 %	75	9.29 %
4	94.88 %	67.76 %	71.84 %	96.05 %	92	11.4 %
5	95.9 %	69.57 %	70.79 %	97.0 %	83	10.29 %
6	94.43 %	65.92 %	55.81 %	96.08 %	80	9.91 %
7	94.04 %	65.54 %	51.02 %	96.17 %	90	11.15 %
8	95.63 %	68.82 %	60.71 %	97.06 %	77	9.54 %
9	94.39 %	65.95 %	56.7 %	96.21 %	88	10.9 %
Avg	-	-	-	-	-	-

Table 2: Performances in predicting ingredients states for fold 9 with $\lambda = 4$ when accuracy is 100% on first layer