

Table 1. Two-way ANOVA summary of specific activities of antioxidative enzymes (\*\* - significant at  $P \leq 0.01$ ).

F-ratio	SOD	POD	CAT	APX	GR
Treatment(1, 32)	55.53**	46.17**	51.40**	0.11	0.08
Dose(7, 32)	4.09**	5.24**	26.86**	9.26**	5.40**
Treatment $\times$ dose(7, 32)	7.66**	12.45**	6.13**	16.36**	5.62**
HSD	287.91	9.32	0.08	2.69	1.05

Table 2. Factor loading values, eigenvalues, and percentage of variance and cumulative variance for the three factors extracted from the principal component analysis.

Antioxidative enzymes	Principal components		
	1	2	3
SOD	-0.602	0.053	0.505
POD	0.342	-0.489	0.369
CAT	0.663	0.359	-0.036
APX	-0.287	0.150	-0.698
GR	0.005	0.779	0.348
Eigenvalues	1.578	1.232	1.109
Variance [%]	31.56	24.65	22.18
Cumulative variance [%]	31.56	56.21	78.39

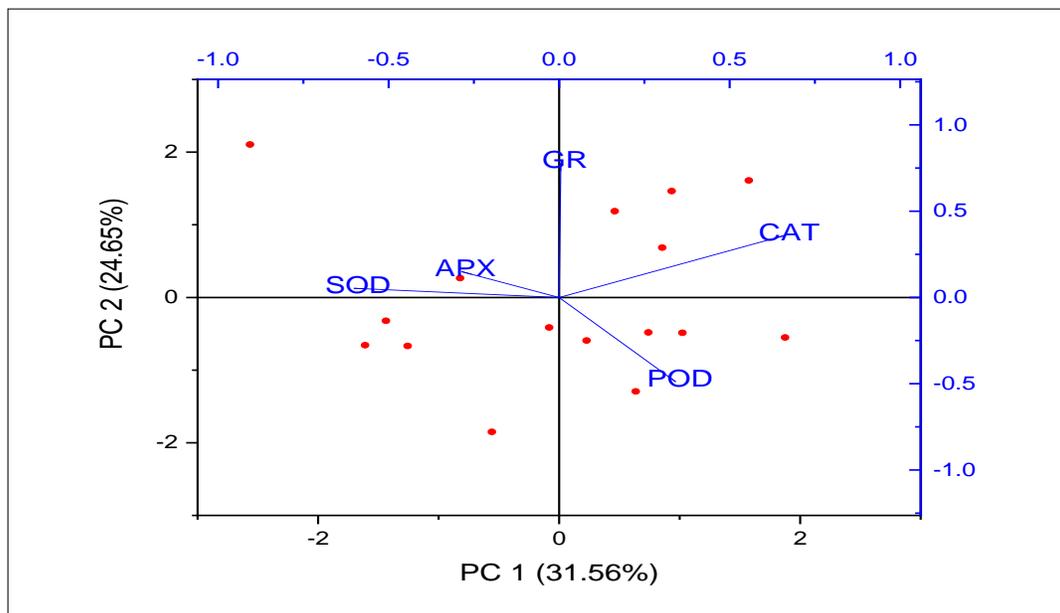


Fig. 1. A principal component analysis (PCA) biplot of the activities of antioxidative enzymes in the shoots and roots of barley seedlings under di-*n*-butyl phthalate-induced stress.

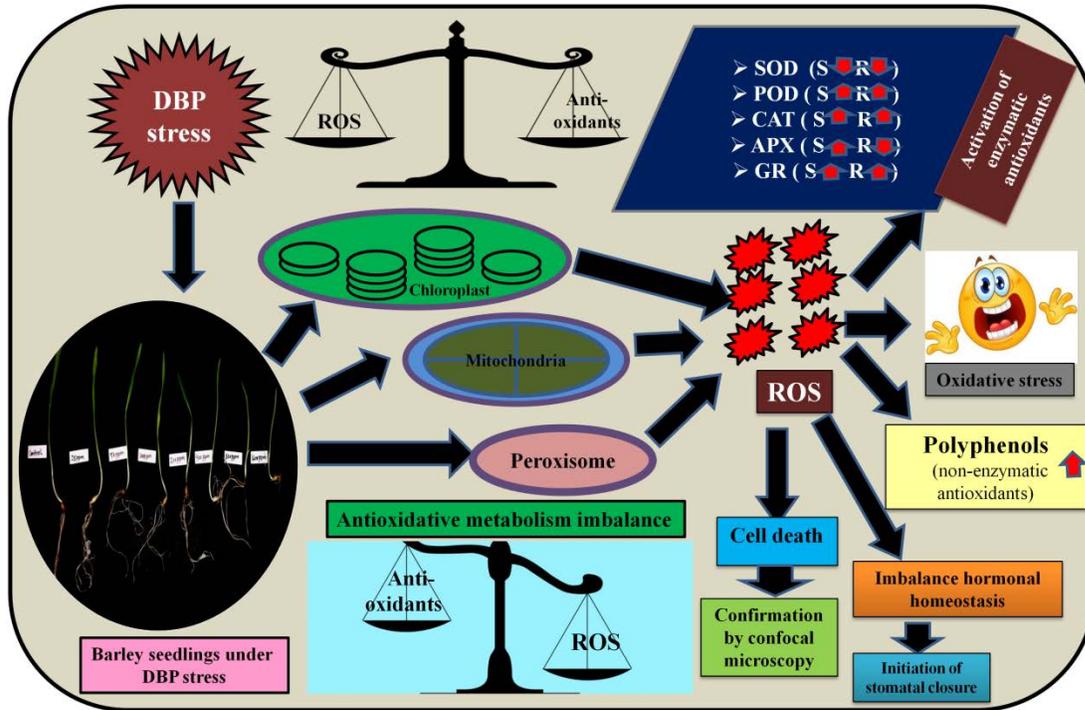


Fig. 2. A scheme of di-*n*-butyl phthalate (DBP)-induced stress in barley seedlings and subsequent antioxidative defense responses.