

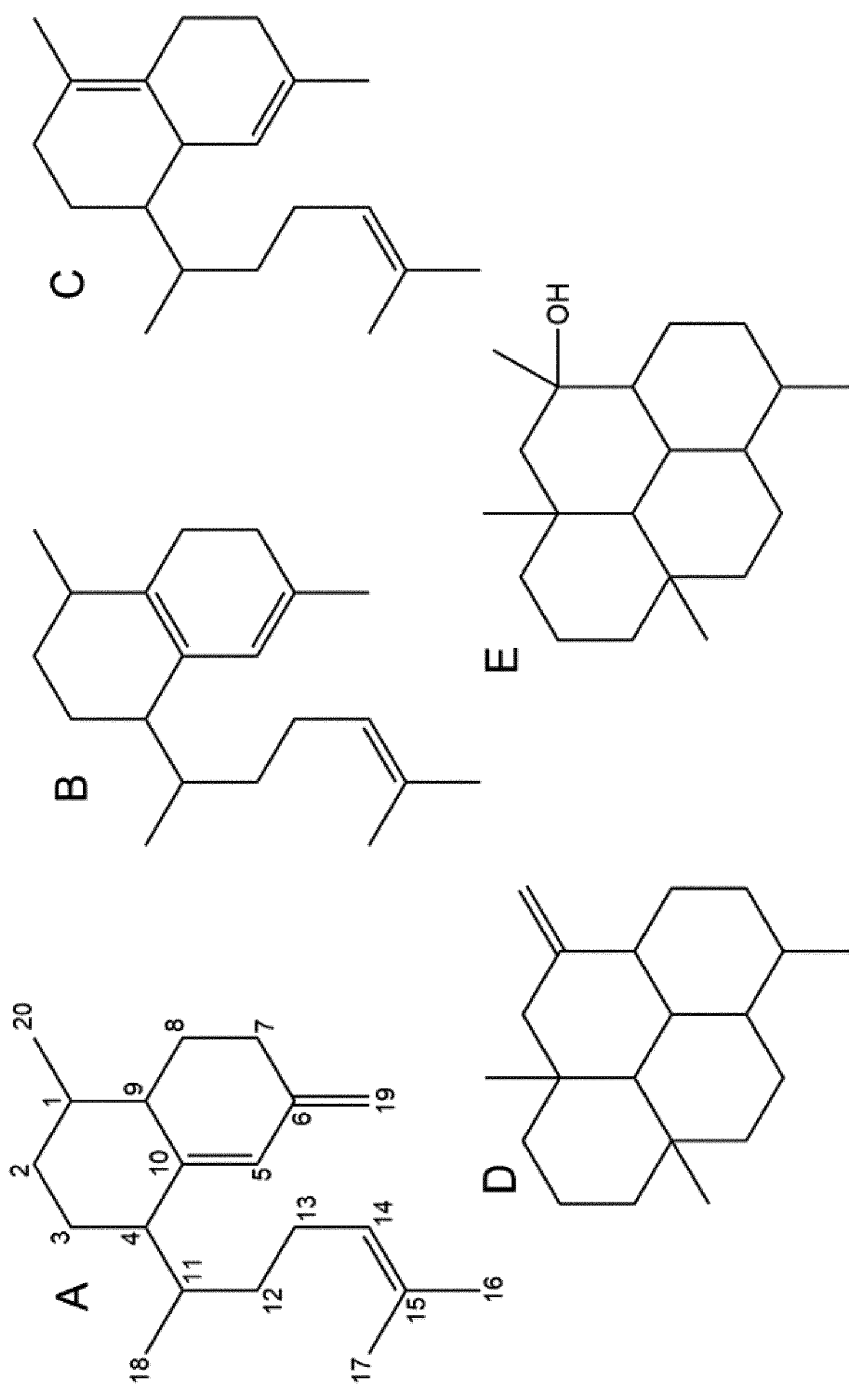
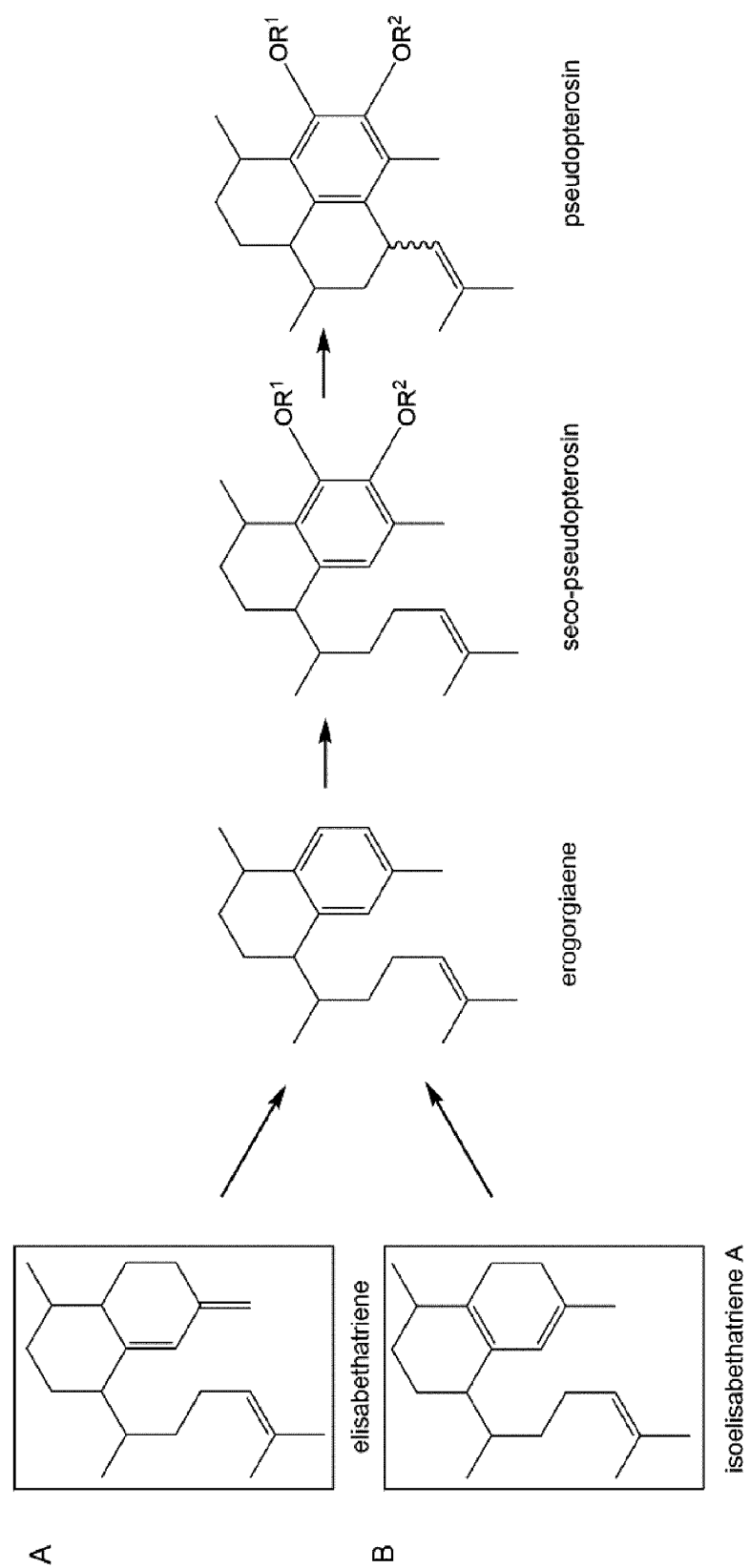


Fig. 1



Motif	Function	CotB2	HpS
DDXXD	Metal (Mg^{2+}) binding Diphosphate coordination	DDMD	DDRAID
NSE triad ((N,D)D(L,I,V)X(S, T)XXE)	Metal (Mg^{2+}) binding Diphosphate coordination	NDFYSYDRE	NDLXSFARE
WXXXXRY	active site closure by salt bridge formation	WTTSNKRY	WSARSARY

Fig. 3

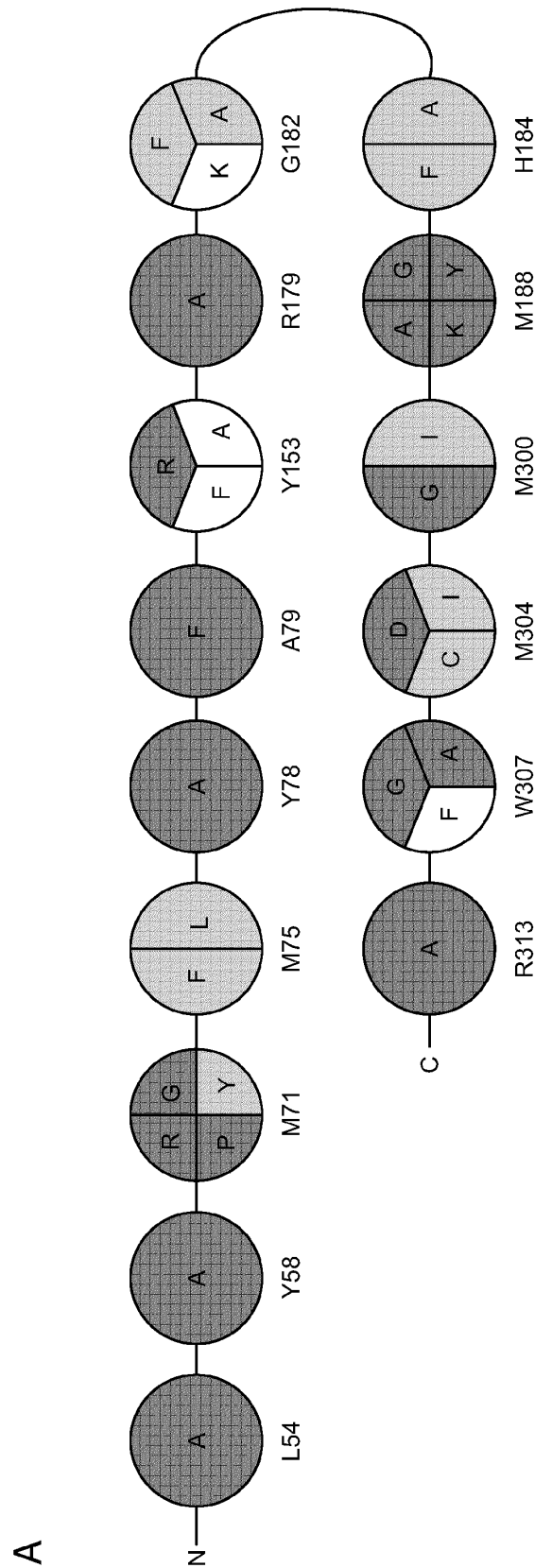


Fig. 4

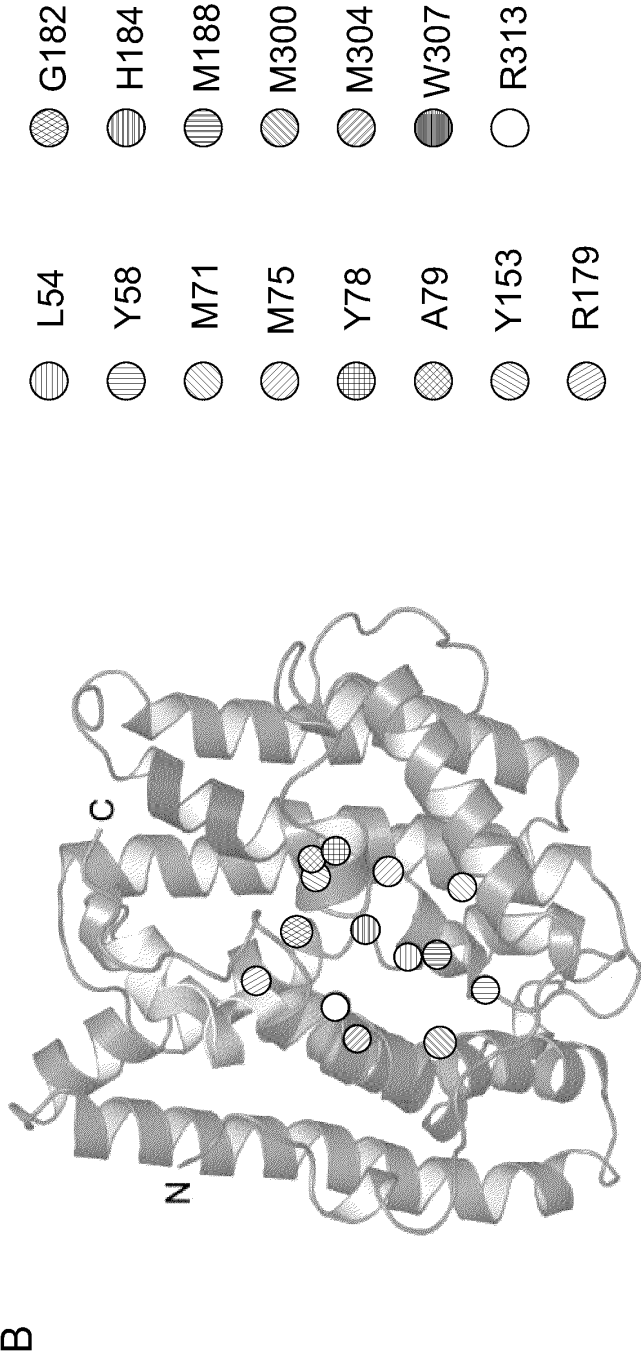


Fig. 4 cont.

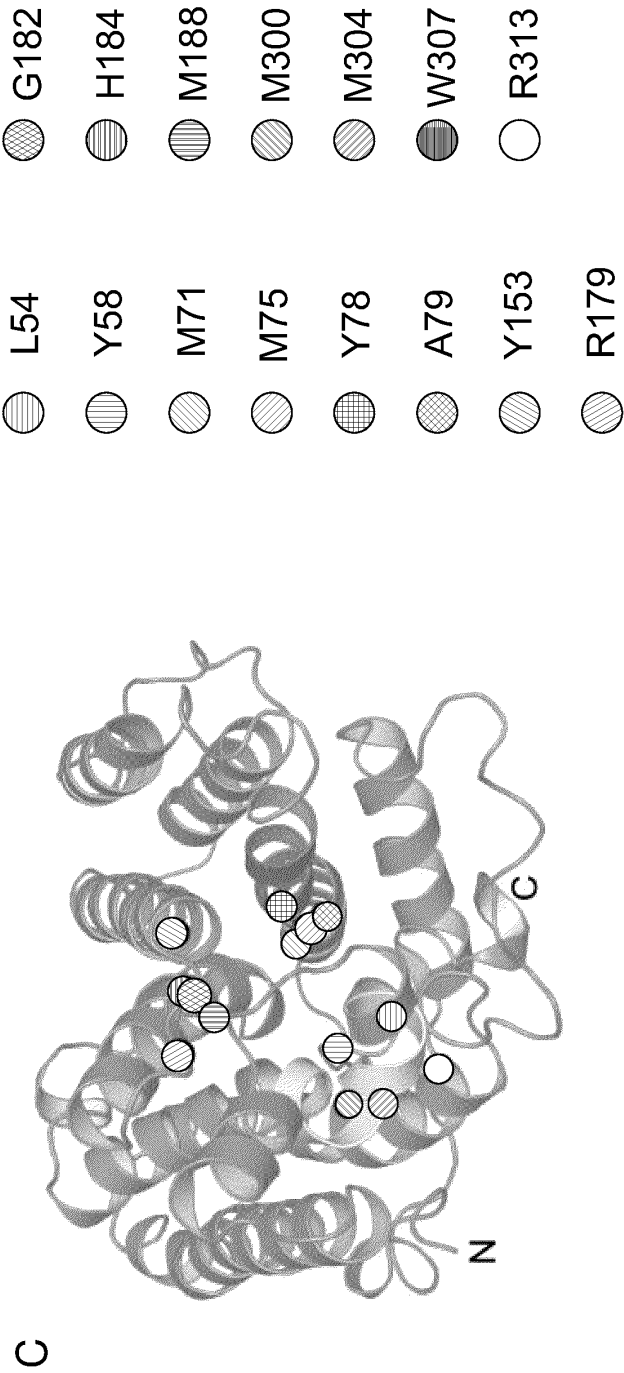


Fig. 4 cont.

D

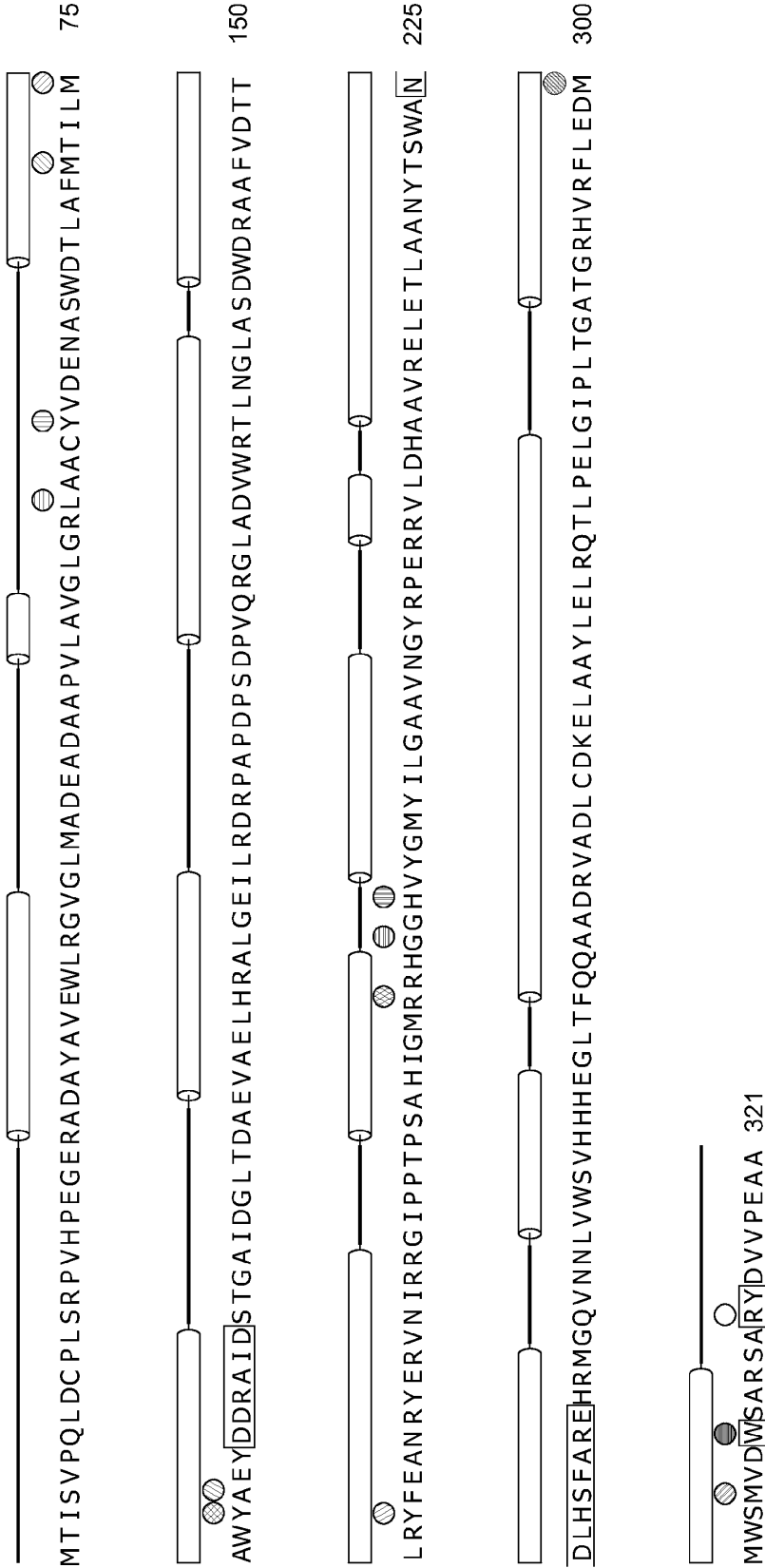


Fig. 4 cont.

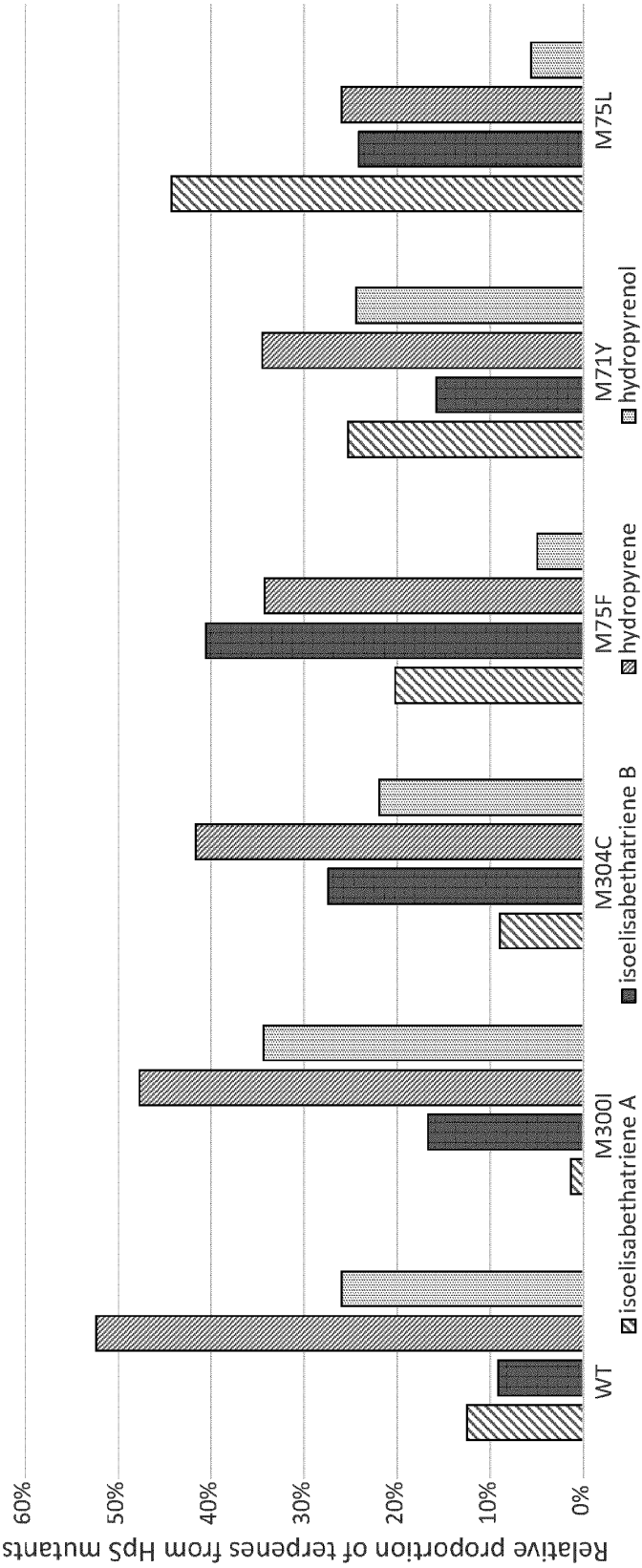


Fig. 5

	WT	M300I	M304C	M75F	M71Y	M75L
isoelisabethatriene A	12%	1%	9%	20%	25%	44%
isoelisabethatriene B	9%	17%	27%	41%	16%	24%
hydropyrene	52%	48%	42%	34%	35%	26%
hydropyrenol	26%	34%	22%	5%	24%	6%

Fig. 5 cont.

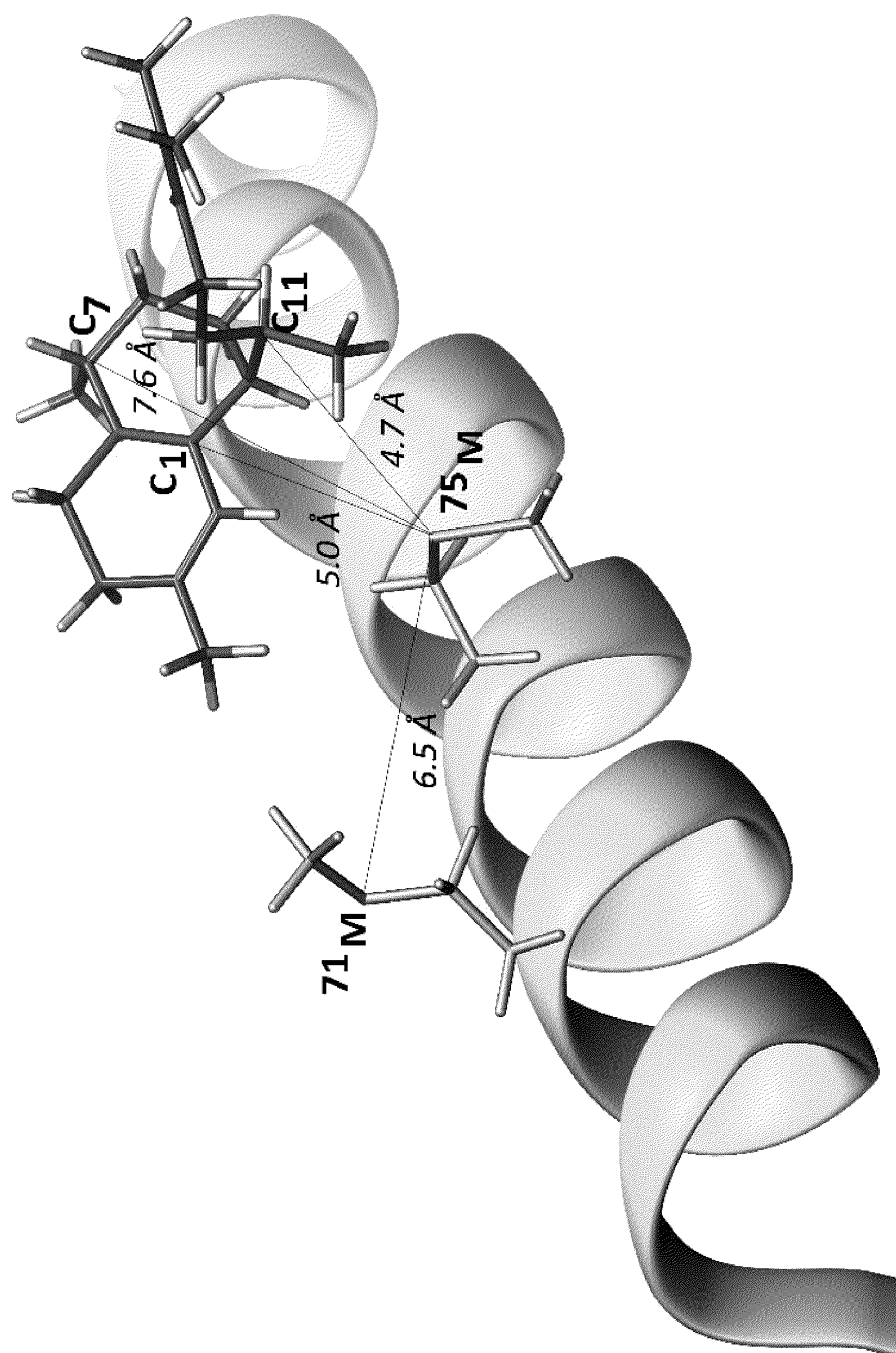


Fig. 6

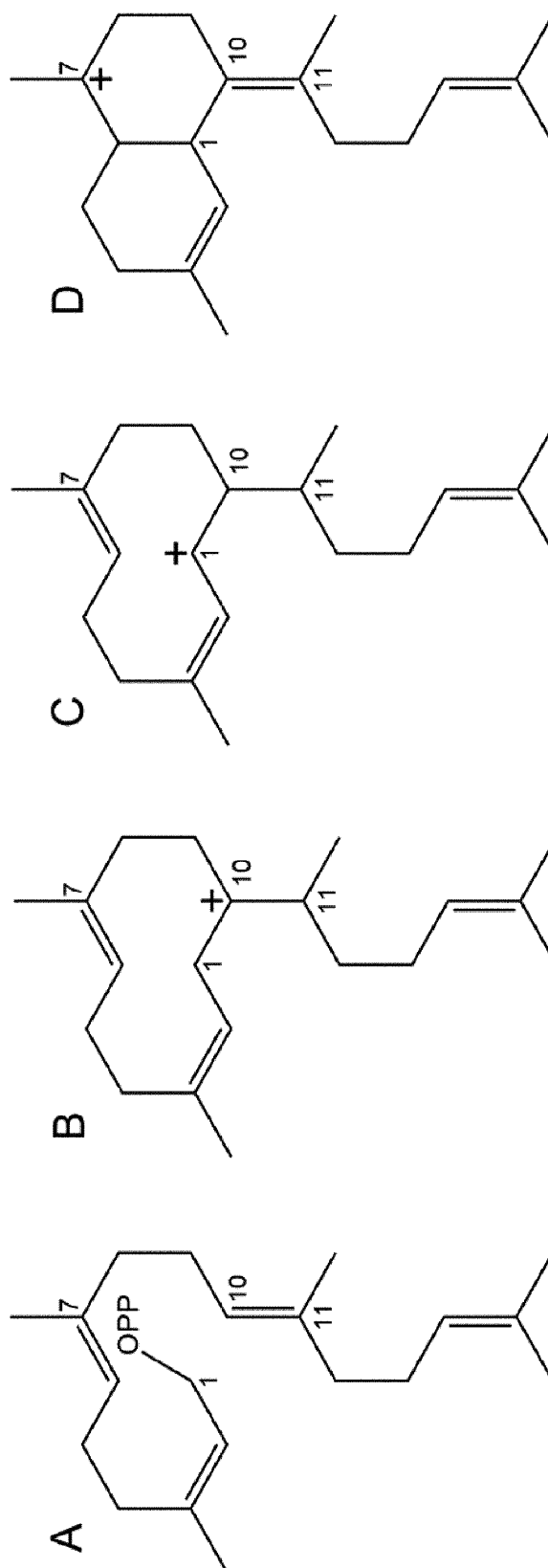


Fig. 7

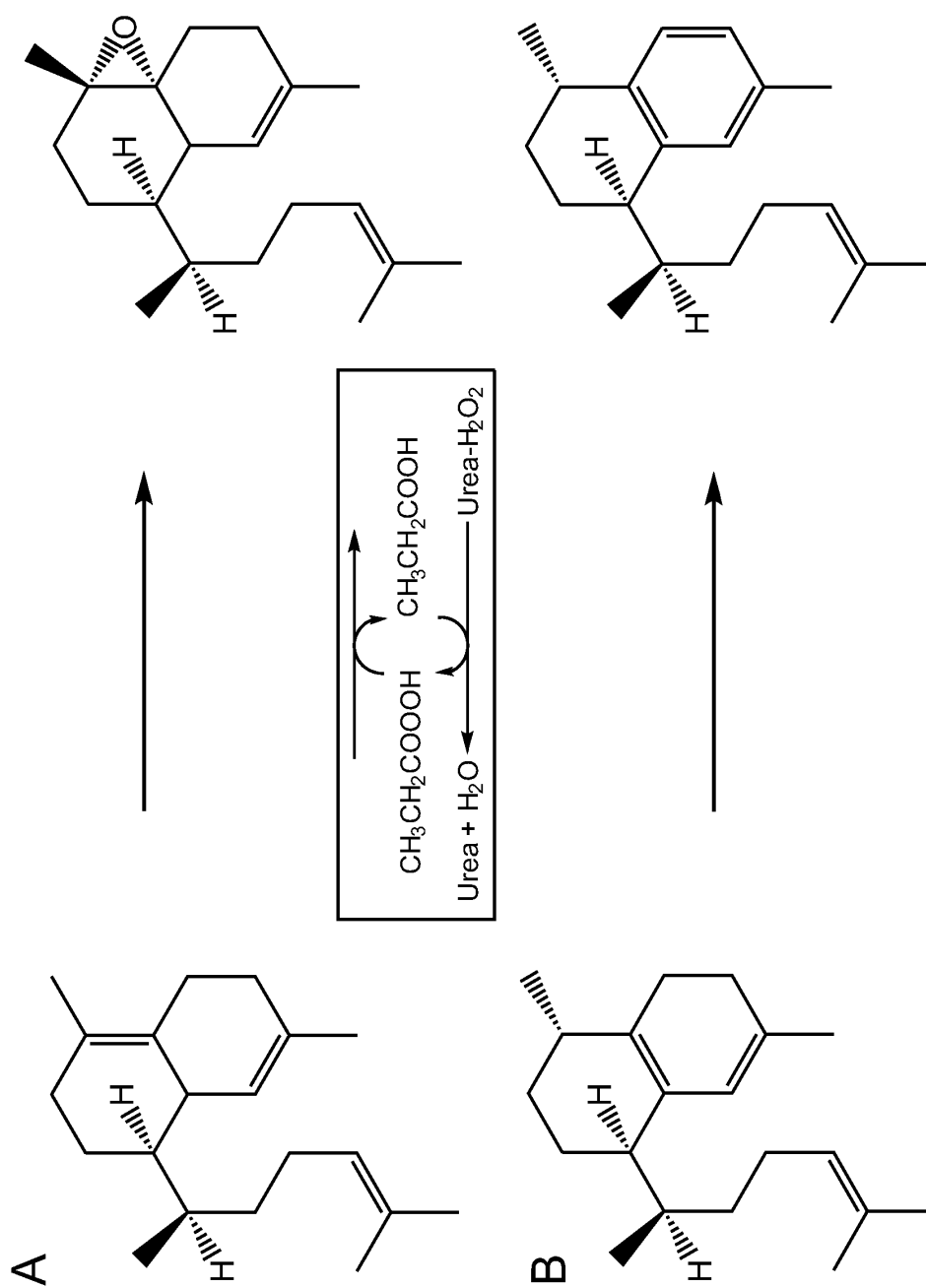


Fig. 8

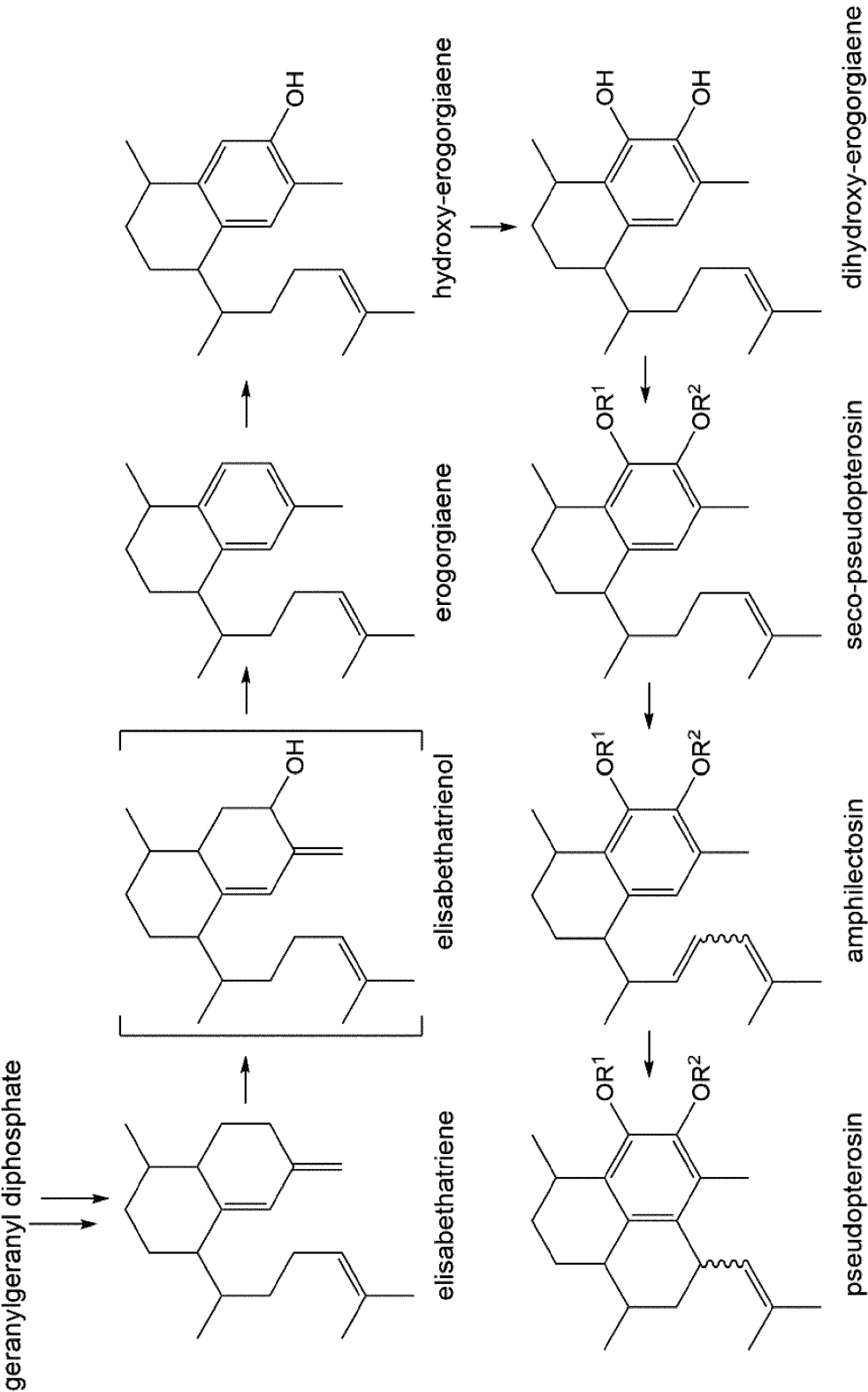


Fig. 9

HpS 1 MTIS.V.PQLDCPL..SRPVXPEGE.RADAYAVEWLRGV.G.L.MADEADAAPVLAVGLGR[AACY.VID
CotB2 24 ECTRRFQEMFDRHVVT RPTKVE.L.DIAELREVI.DCNAAVAPLCKT]..VSDERWIS..YVGVLWSQS.

HpS 61 E.NA.[SWD]TLAFMTI.LMAWYAEYDDRAIDSTGAIDGLTDAEVAELXRA[GEILRDRPAPDPSDPVQRGL
CotB2 87 PRH]IKDMEAFKAVCVLNCVTFVWDDM..D.....PALH..DFGLF].....LPQL

HpS 128 ADVWRITLNGLAISDWDRAAFVDITTLRYFEAN]RYER.VNIRRG]I...PP...T]PISAXI]GMRX]GGXVYGM
CotB2 187 RKI]CEKY..YG.PEDAEVAEYEAARAFVTSDHMF]RD]S.....PIKAAILCTITSP]EQYF]RFR]VT]DIGVDFW

HpS 189 YIL]GAAVNGYR]PERRV.LDIXAAV].R.ELET]AANYT]SWANDI]X]S]FA]RE]XR]M]GQV]NN]LVWSV]XXEGLTF
CotB2 187 MKMSYP]YR..HP..EIFTE]..HAK]TS]LAAR]MT]IRGLT]I]VND]FY]SYD]RE]VS]L]GQ]ITN]CFRLC.....DV

HpS 225 ...Q...QAAD]RVAIDLCDDK[E]LAAYL]ELRQ]TL]PELGIPLTGATGRX]VRFL]EID]MMWSMVDWSAR]SAR]YD]VV
CotB2 244 SDETA]FKE]FFQARLD]DM]ED]IEC]IK.....AFD.....QLT]QDVFIL]D]LIYGNFVMT]IS]NKR]YK...

Fig. 10

