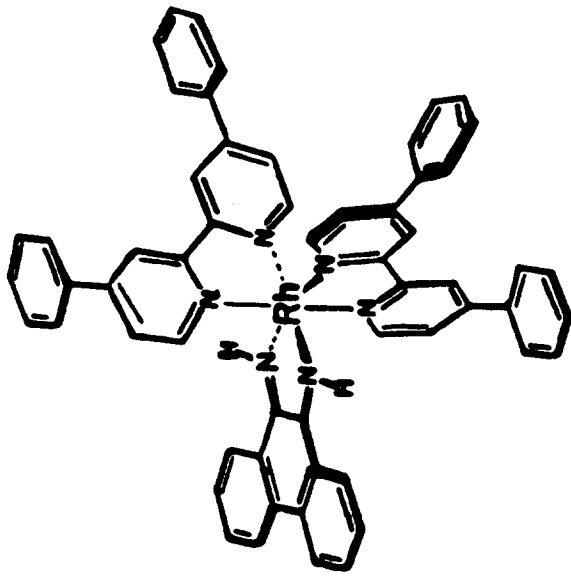
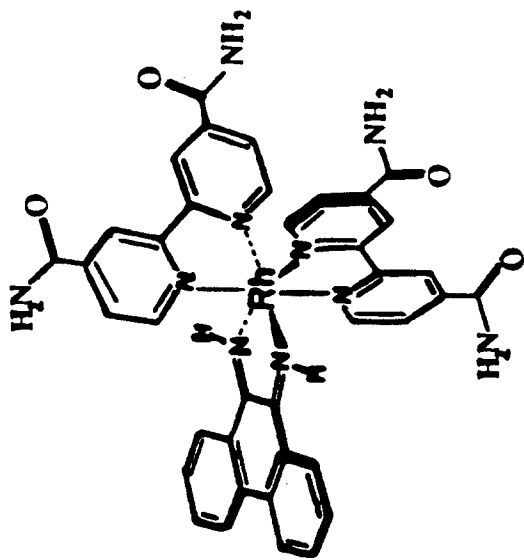


Rh(5,5'-dimethylbpy)₂phl³⁺

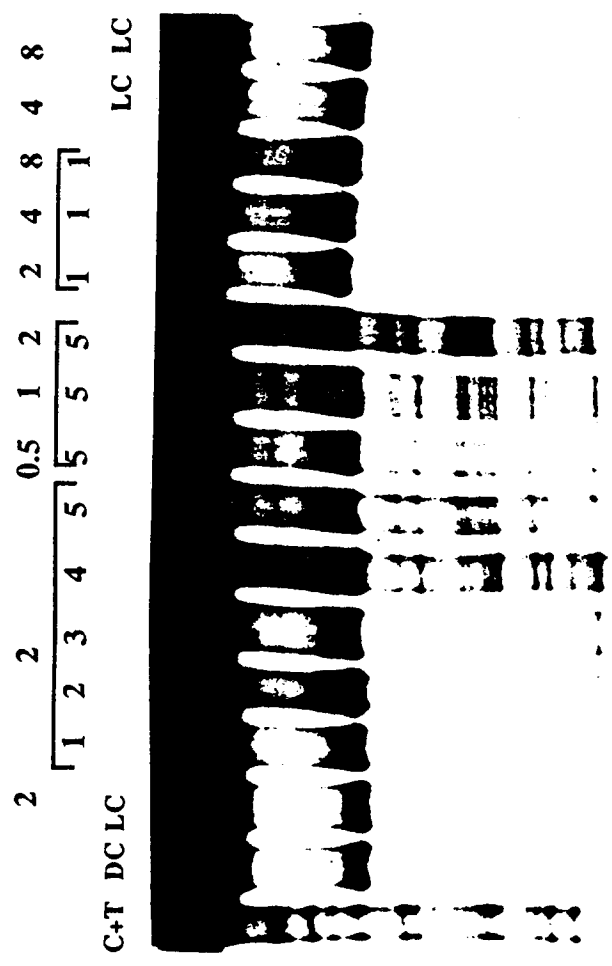


Rh(4,4'-diphenylbpy)₂phl³⁺

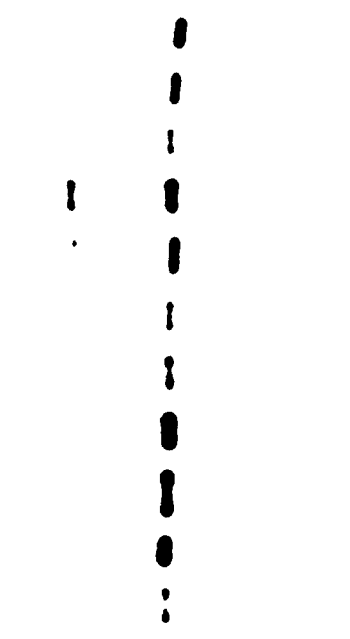


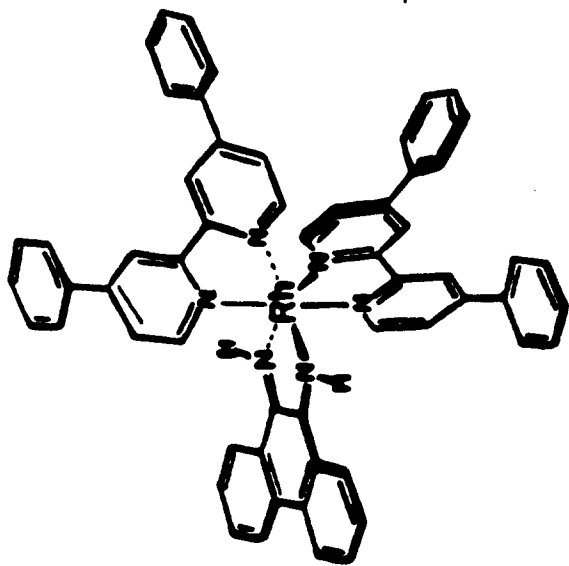
Rh(4,4'-diamidobpy)₂phl³⁺

Irradiation time (min)
Metal conc. (μM)

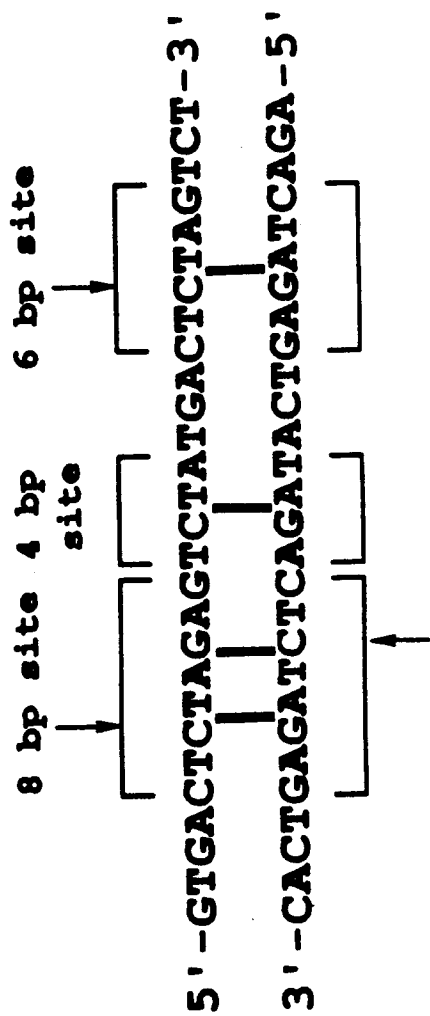


5' G
A C T C T A G A
3' G





Rh(4,4'-diphenylbpy)₂phl³⁺

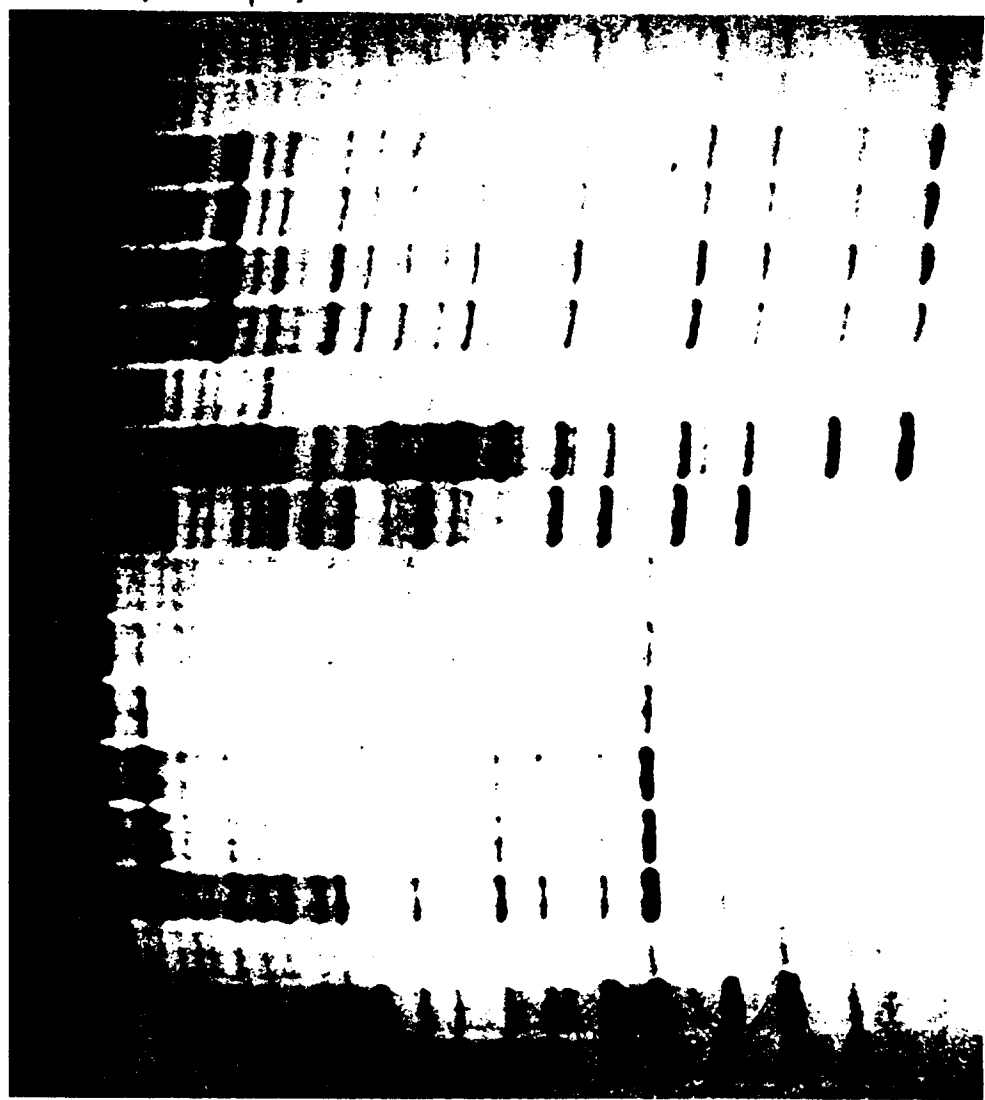


STRAND I

STRAND II

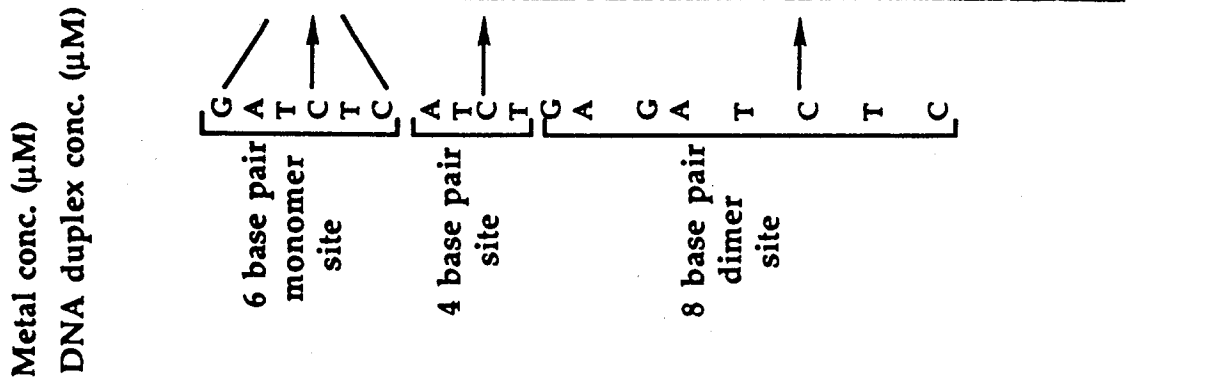
Metal conc. (μM)
DNA duplex conc. (μM)
A+G C+T LC

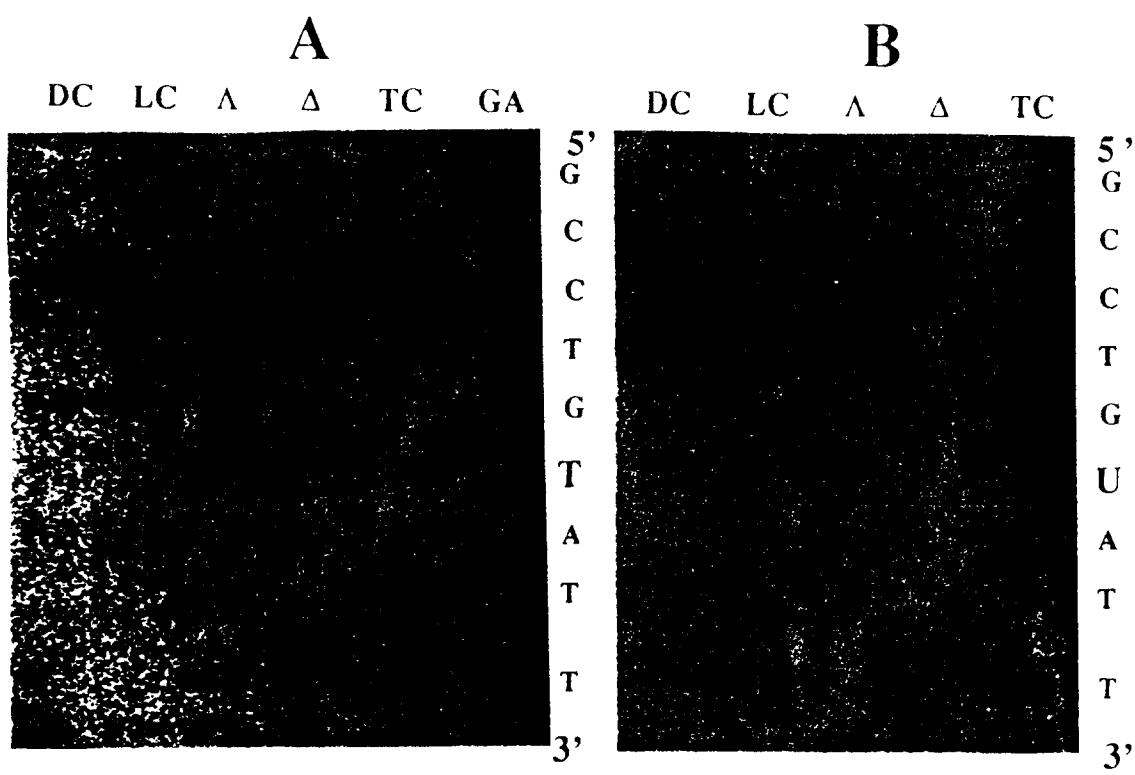
5.0 1.0 0.5 0.3 0.1 0.05
10.0 2.0 1.0 0.6 0.2 0.10
5.0 1.0 0.5 0.3 0.1 0.05
10.0 2.0 1.0 0.6 0.2 0.10



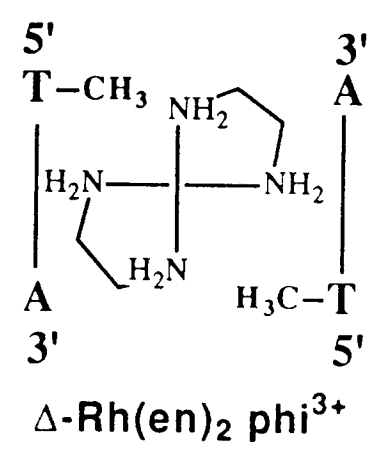
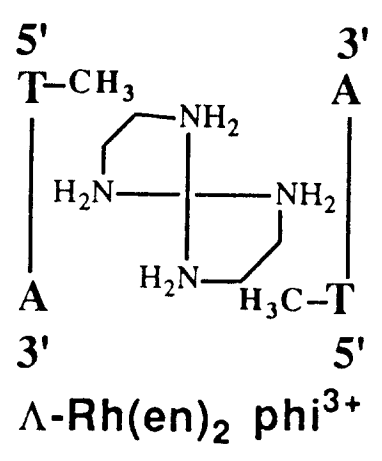
6 base pair monomer site
4 base pair site
8 base pair dimer site

8 base pair dimer site





C



Structural characteristics

phi-ligand:

planar, intercalative binding
high binding affinity for DNA
light induced cleavage of DNA

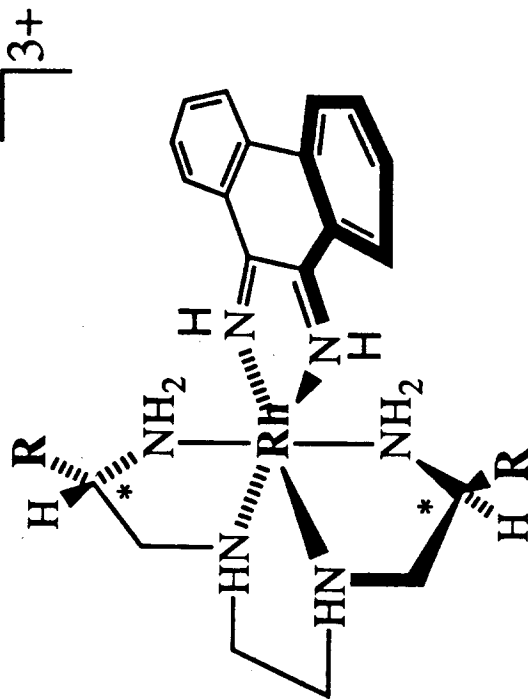
metal:

octahedral $d_6Rh(III)$, saturated, kinetic inert
stable configuration

amino-ligand:

tetradentate ligand (no isomerisation)
hydrogen-donating groups in axial positions
derived from amino acids (high variability, D, L)
diastereomeric compounds are obtained (separation)
 C_2 -symmetry

R-groups are in defined spacial positions



$R = CH_3, CH(CH_3)_2, Ar$

$(CH_2)_n-C(=O)-NH_2$

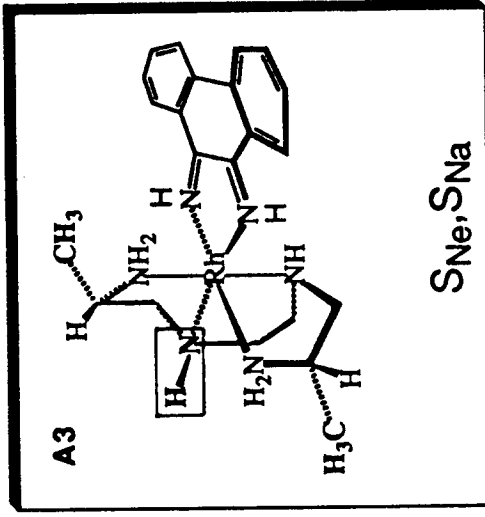
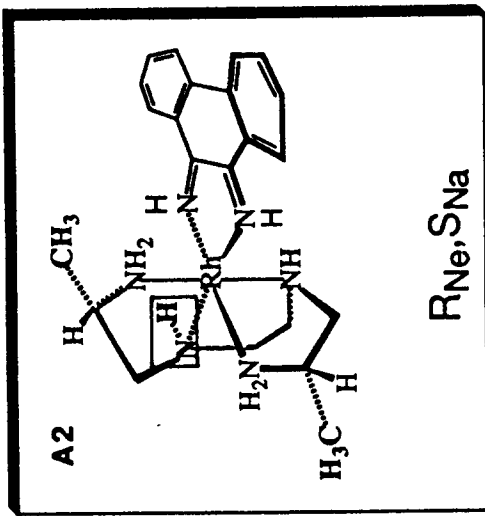
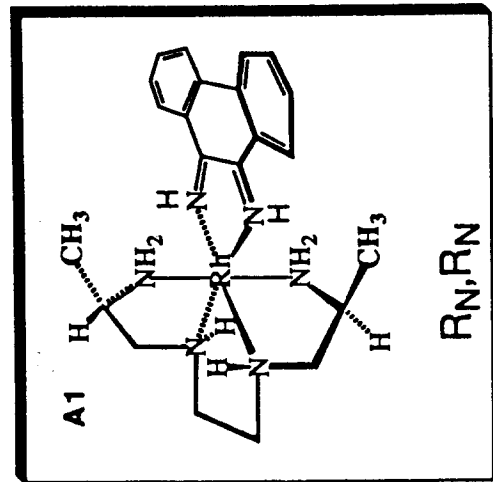
$(CH_2)_n-NH-C(=O)-NH_2^+$

$(CH_2)_n-COO^-$

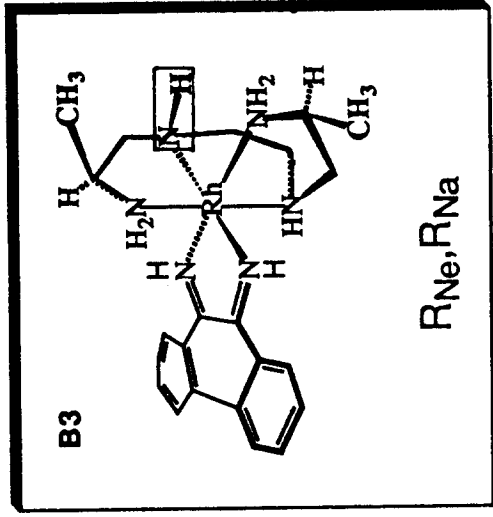
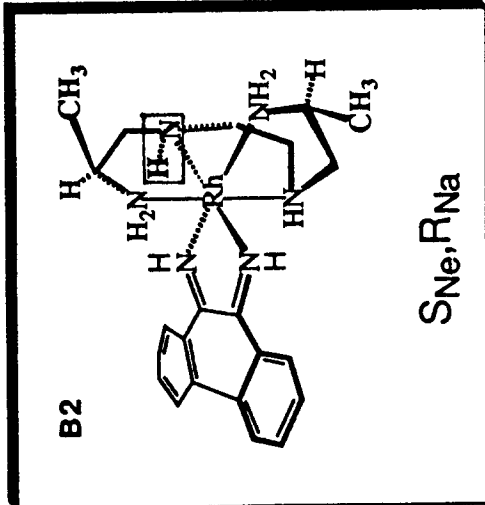
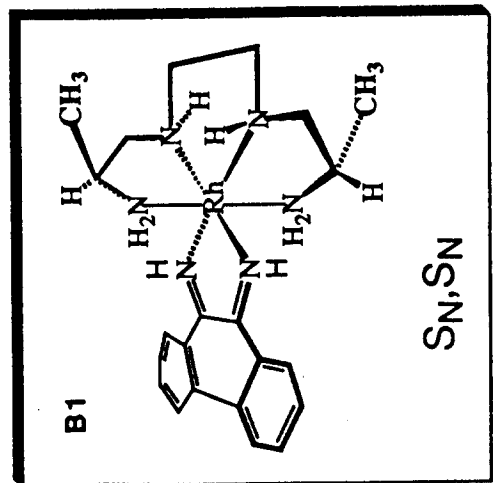
[(S,S)-Me₂trienRhphij]³⁺-Complexes

β-isomers

α-isomers

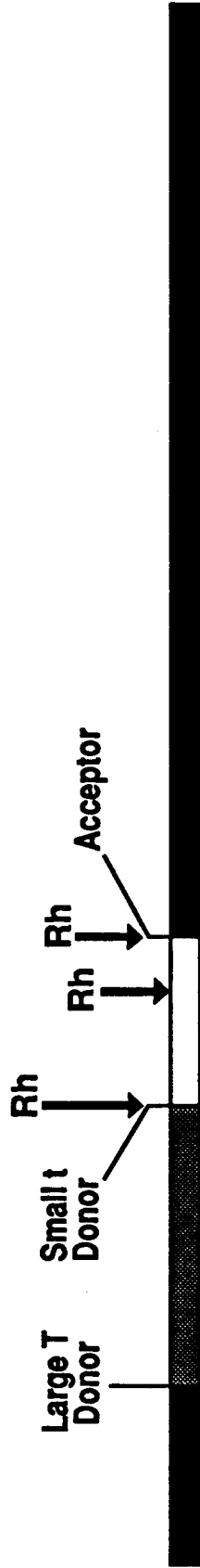


Δ-conf.



Δ-conf.

Simian Virus 40 T Antigen Transcription Unit



Adenovirus 2 E1A Transcription Unit

