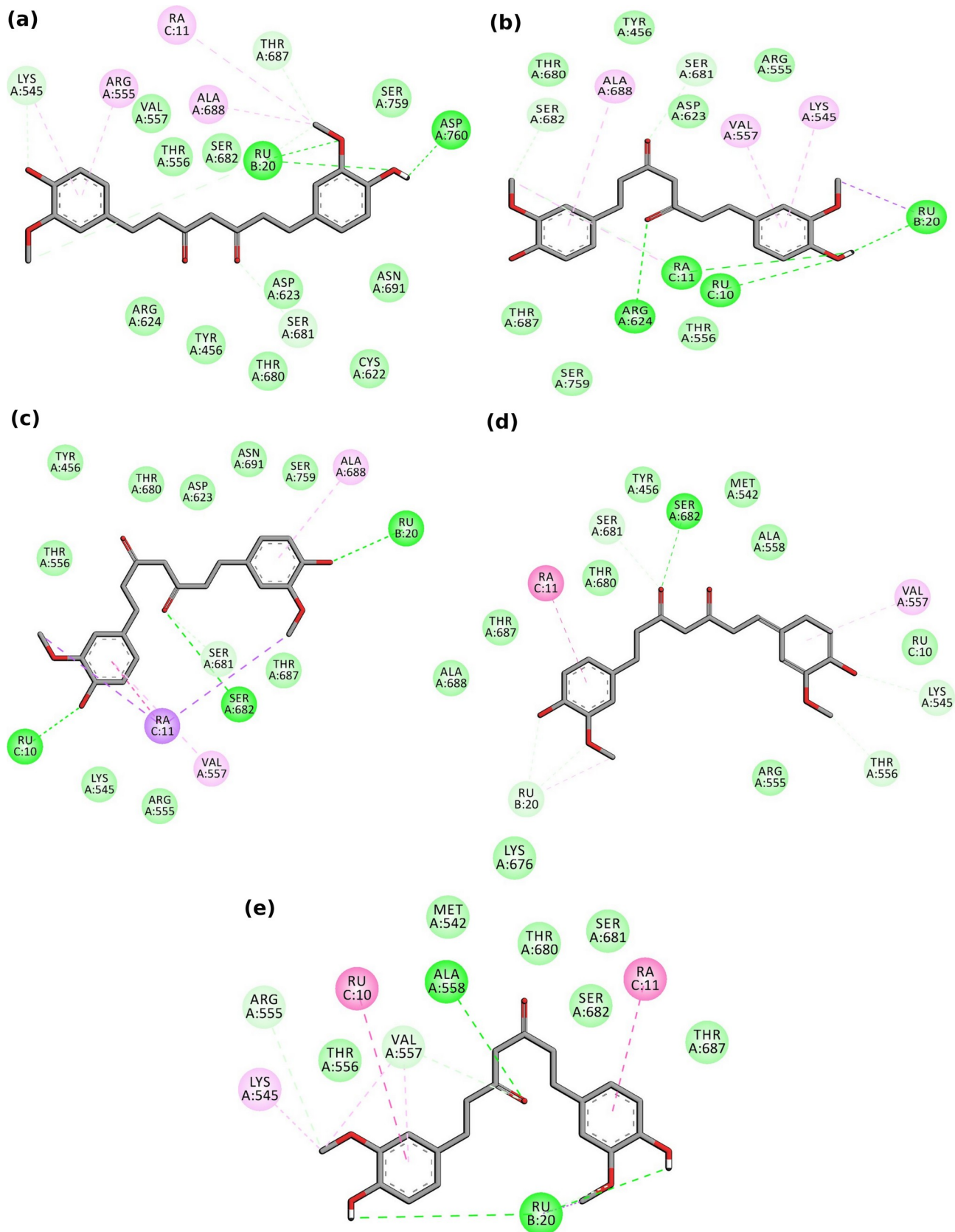
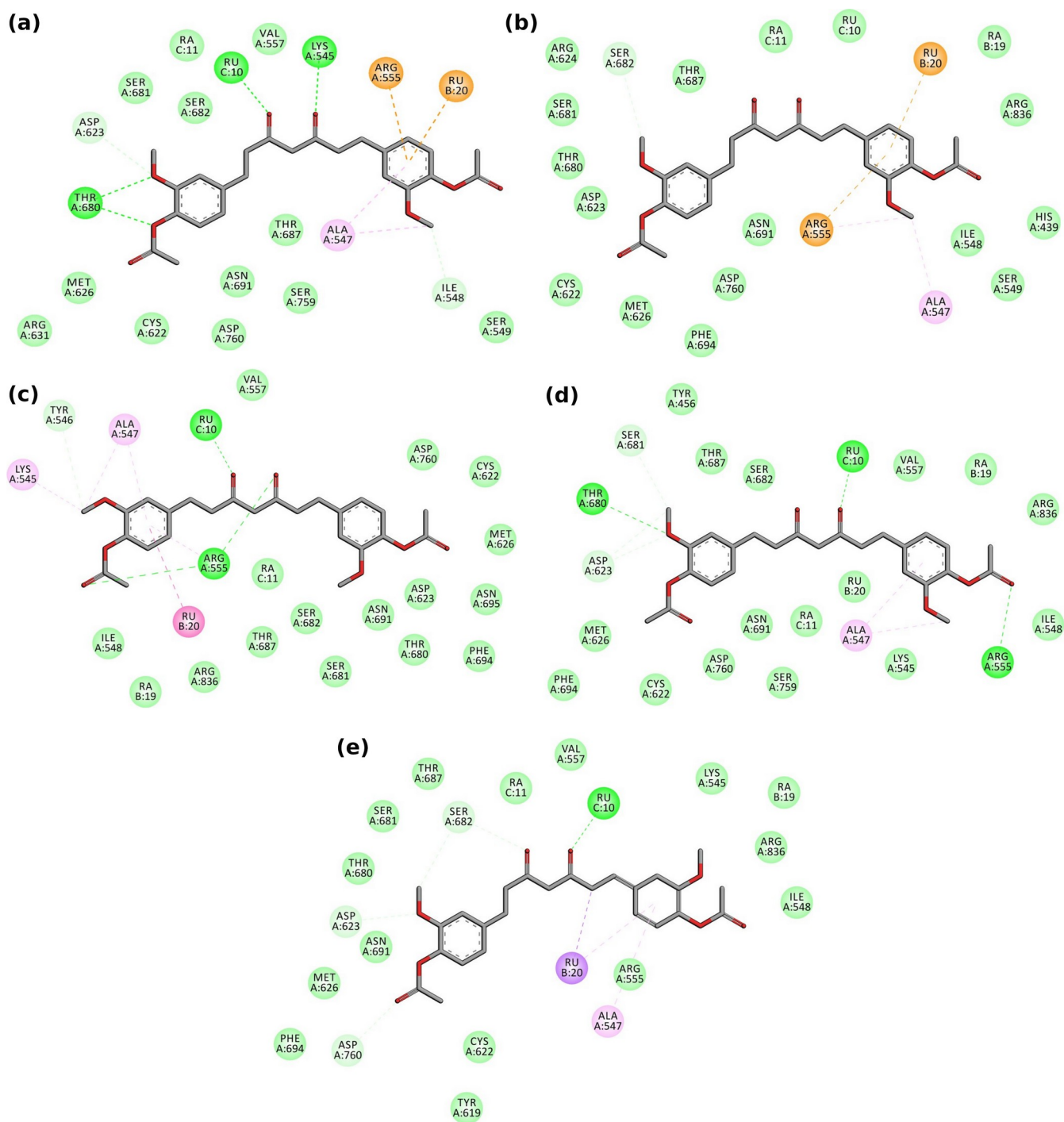


## Supplementary Data



**Figure S1.** Molecular docking 2D interaction poses of the RdRp-RNA of SARS-CoV-2 in complex with curcumin at different time intervals. (a) 5 ns, (b) 25 ns, (c) 50 ns, (d) 75 ns, and 100 ns.



**Figure S2.** Molecular docking 2D interaction poses of the RdRp-RNA of SARS-CoV-2 in complex with diacetylcurcumin at different time intervals. (a) 5 ns, (b) 25 ns, (c) 50 ns, (d) 75 ns, and 100 ns.

**Table S1.** Comparative binding free energy in individual terms for FDA-approved drugs and selected compounds bound to RdRp-RNA generated by MM-PBSA method.

S. No.	RdRp-RNA-Ligand Complexes	$\Delta E_{\text{binding}}$ (kJ/mol)	$\Delta E_{\text{polar solvation}}$ (kJ/mol)	SASA (kJ/mol)	$\Delta E_{\text{Electrostatic}}$ (kJ/mol)	$\Delta E_{\text{Van der Waals}}$ (kJ/mol)
1.	RdRp-curcumin	-42.162	101.798	-13.496	-18.137	-112.327
2.	RdRp-diacetylcurcumin	-71.964	116.315	-19.107	-14.698	-154.474
3.	<b>RdRp-Remdesivir</b>	<b>107.346</b>	<b>437.201</b>	<b>-12.356</b>	<b>-248.406</b>	<b>-69.093</b>
4.	<b>RdRp-Favipiravir</b>	<b>248.378</b>	<b>977.029</b>	<b>-12.653</b>	<b>-657.208</b>	<b>-58.790</b>
5.	RNA-curcumin	-40.306	27.351	-6.539	-11.487	-49.631
6.	RNA-diacetylcurcumin	-80.718	31.556	-8.498	-31.535	-72.242
7.	<b>RNA-Favipiravir</b>	<b>2091.712</b>	<b>-18.286</b>	<b>-6.780</b>	<b>2168.615</b>	<b>-51.572</b>
8.	<b>RNA-Remdesivir</b>	<b>1311.862</b>	<b>-30.025</b>	<b>-7.045</b>	<b>1387.624</b>	<b>-40.383</b>