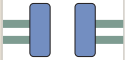
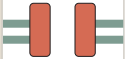
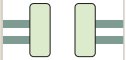
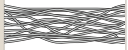
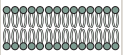
			amount	rate	minimum number (per cell)	observed number (per cell)
transport	CARBON		10^{10} carbon atoms	200 sugars per second	$3x10^3$ glucose transporters	~1–$3x10^4$ glucose transporters
	WATER				0 (membrane is sufficient)	~1– $40x10^3$ water channels
	ION					
synthesis	DNA		$5x10^6$ bp	600 nucleotides per second	~50 DNA polymerases	~10^2 DNA polymerases
	RNA		$2x10^3$ mRNAs $6x10^4$ rRNAs	40 nucleotides per second	3–$5x10^3$ RNA polymerases	
	dNTP		$5x10^6$ dNTPs			~20 ribonucleo reductases
	ATP		10^{10} ATP per cell cycle	10^3 molecules per second	3–$5x10^3$ F_1F_O ATP synthases	
	CELL WALL					
	LIPID		$5x10^7$ lipids	~1 per second per synthase	1–$2x10^3$ fatty acid synthases	
	PROTEIN		$3x10^6$ proteins	10 – 20 amino acids per second	1–$2x10^4$ ribosomes	
	tRNA		$3x10^8$ amino acids			