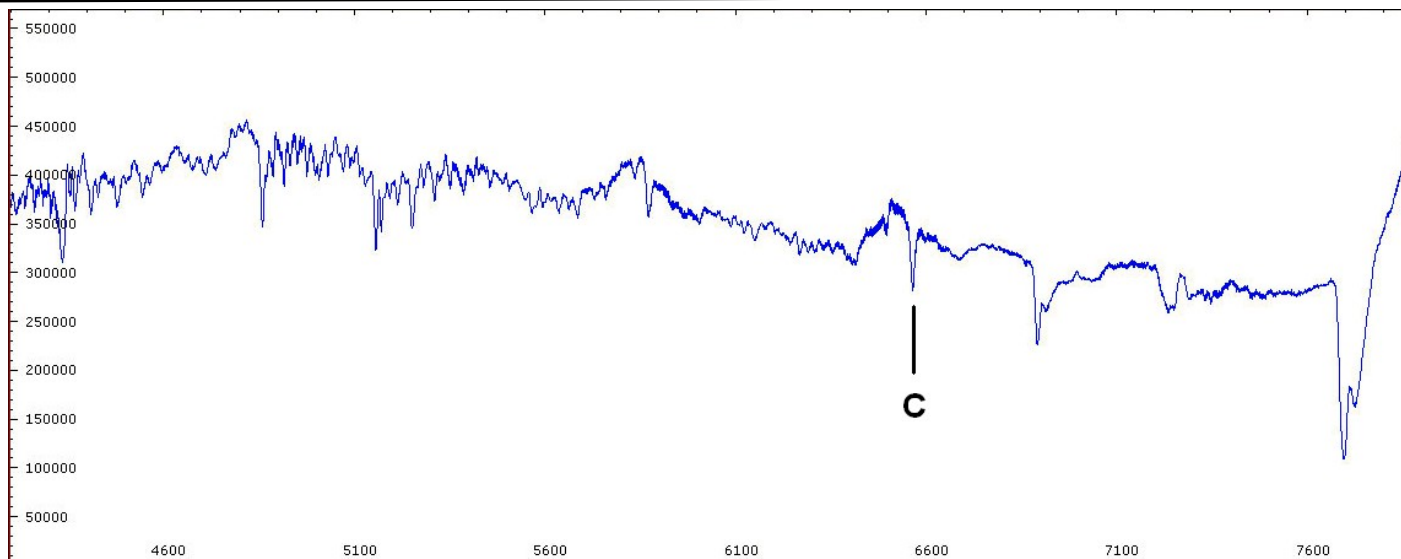
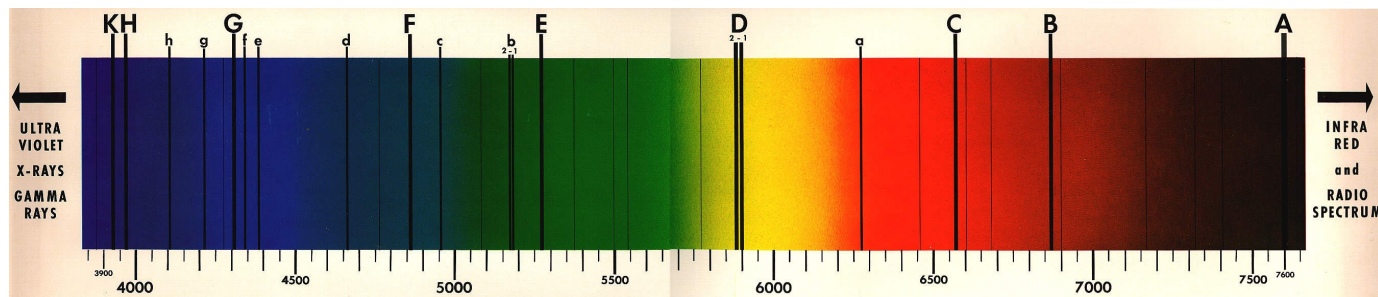


Names _____

ASTRONOMY - IN-CLASS EXERCISE – THE SUN

1. Below is a visual and graphic display of the visible light spectrum of the Sun. Using the graphs and figure, fill in the missing information in the table, and label the Upper Case lines on the graphical spectrum. Line “C” is done for you.



Line name (letter)	Due to Element	Wavelengths (Angstroms)
C	H (Hydrogen)	6563
	Fe (Iron)	4668
D - 1, 2	Na (Sodium)	
E	Fe (Iron)	
	Mg (Magnesium)	5184 & 5173
c	Fe (Iron)	
	H (Hydrogen)	4861
g	Ca (Calcium)	
e	Fe (Iron)	
	H (Hydrogen)	4340
G	Fe & Ca (Iron & Calcium)	
K	Ca (Calcium)	

4490.	N VI	4494.13073	Ar II	4500.0	S V]	4504.1	S V
4490.0080	[Fe II]	4494.374	Ne I	4500.027	Ni II	4504.131	Ne II]
4490.041	Ni II	4494.445	Ni II	4500.061	Ni II	4504.18	Ni V
4490.08	Na II	4494.515	Ne II]	4500.07	C VI	4504.18964	Ar II
4490.080	Si I	4494.630	O III]	4500.0736	Fe I]	4504.2383	Fe II]
4490.119	Fe II]	4494.6319	Fe I]	4500.1?	Na IV	4504.35117	Ar II]
4490.16530	Fe I]	4494.64	S IV	4500.1296	Ni I]	4504.411	Ar I
4490.18	Mg III]	4494.756	Ne II	4500.1335	[Fe II]	4504.47	O III]
4490.18345	Fe I]	4494.7893	Fe II	4500.17	[Fe IV]	4504.6381	Ar II]
4490.1873	Fe I]	4494.84	N I]	4500.187	Ne II	4504.85	[Ni VI]
4490.20	Ni V]	4494.93495	Fe I]	4500.252	Ne I	4504.97	Al IV
4490.439	Ca II	4494.9524	Ne I	4500.270	Na III]	4505.	Ar VIII]
4490.4421	Fe II	4495.	O VI	4500.306	Fe II	4505.188	Si III]
4490.49584	Ar II	4495.08	Fe III]	4500.335	Fe III]	4505.47379	Fe I]
4490.501	Fe III]	4495.158	Ne I	4500.335	Fe IV	4505.521	[Ni III]
4490.5889	Fe I	4495.16267	Fe I]	4500.379	Ne II	4505.6061	Fe II
4490.709	Ni II	4495.182	Ne III]	4500.452	Ni II	4505.66	Ni V
4490.721	O II	4495.267	Ni II	4500.476	Fe III]	4505.8	Na IV
4490.73	Na II	4495.303	Si III]	4500.484	S III]	4505.810?	Ni II]
4490.979	Ni II	4495.31321	Fe I	4500.5458	Fe II	4505.842	Ne II]
4490.99874	Fe I]	4495.317	Ni III]	4500.695	Na II	4506.015	Ne II
4491.003	Fe IV	4495.344	Fe III]	4500.79	[Fe IV]	4506.03	Na II
4491.0625	Fe II]	4495.441	Na I	4500.855	Ne II	4506.055?	Ni II
4491.134	Al II	4495.47	S IV	4500.873	Na II	4506.09422	Fe I]
4491.3142	Ni I	4495.4826	Fe I]	4500.9502	Fe II	4506.258	Ni II]
4491.34386	Fe I	4495.550	Ni II	4500.99270	Ar II]	4506.2845	Ca I
4491.409	Na II	4495.8	S V	4501.	Al V	4506.390	Ca III]
4491.451	Na II	4495.82412	Fe I	4501.019	O II]	4506.423	Ar I
4491.49273	Fe I]	4495.908	Ni II	4501.046	Ne II]	4506.476	Ni II
4491.58	Al IV	4496.029	Fe III]	4501.084	Ne I	4506.486	Ni III]
4491.688	O II]	4496.061	Fe II]	4501.097	Ne I	4506.498	Fe III]
4491.75702	Fe I]	4496.06244	Fe I]	4501.147	Ca III]	4506.516	Na III]
4491.7984	Ni I	4496.13	Fe III]	4501.204	Ni II	4506.634	Ni II
4491.827	Fe II	4496.63600	Fe I]	4501.394	Ne II	4506.874	Ni II]
4491.891	Ni II	4496.6522	Fe I]	4501.404	Ni II	4506.9519	Fe I
4491.89261	Fe I]	4496.688	Ni II	4501.4440	Ne I	4506.9742	Fe II]
4491.899	Ni II	4496.68877	Fe I]	4501.457	Na III]	4507.	Na VII
4491.9158	Ni I	4496.7773	Fe II]	4501.469	Ne I	4507.0496	Fe I
4491.982	Na III]	4496.82850	Fe I]	4501.487	Ni II	4507.13	Al II]
4492.	Na VI]	4496.91	Ni V	4501.5074	Fe II]	4507.19	Si I
4492.004	Ni II	4497.0	Na IV	4501.512	Fe II	4507.266	Fe IV
4492.01993	Fe I	4497.13	N IV	4501.722	Fe II]	4507.28	N II
4492.07138	Fe I	4497.187	Ni II	4501.885	Fe II	4507.33	Na II
4492.141	Na II	4497.206	Ni II]	4501.8977	Fe I]	4507.514?	Ni II
4492.151	Fe III]	4497.25	[Fe V]	4501.949	Ni II	4507.5705	Ni I
4492.173	O II	4497.254	Ca III]	4501.9536	Ni I]	4507.625	Fe III]
4492.189	Fe III]	4497.258	Fe III]	4502.	Al V	4507.86	N II
4492.230	Si III]	4497.4350	Ca I	4502.010	Ni II]	4507.8858	Ca I
4492.24129	Ar II	4497.5048	Fe I]	4502.203	Ne I	4507.904	O III]
4492.3	N I	4497.507	Ne II	4502.233	Ni II	4508.13	N II
4492.319	Na II	4497.69	Si I	4502.253	Ni II	4508.235	Na II
4492.3503	Fe I	4497.815	Ni II	4502.320	Ni II	4508.3024	Fe I
4492.351	N II]	4498.00	Ar I	4502.34	O VIII]	4508.3665	Fe II
4492.39	C II	4498.08	N III]	4502.3539	Fe II	4508.42	N IV
4492.40	[Fe IV]	4498.369	S II]	4502.4	N III]	4508.459	Fe III]
4492.48	C II	4498.379	Fe III]	4502.434	Fe III]	4508.4795	Fe I
4492.482	O II	4498.43	N II	4502.541	Ne II	4508.6260	Fe II]
4492.6655	Fe II	4498.45	Ar I	4502.592	Ne II	4508.63153	Fe I
4492.68126	Ar II]	4498.51	Al II	4502.604	Ni II	4508.6710	Ca I
4492.72870	Fe I]	4498.55	Ni V]	4502.6308	Fe II	4508.69	[Ni V]
4492.837	Fe IV]	4498.559	Fe III]	4502.70	Mg III]	4508.707	O II
4492.837	Ni II	4498.69	Mg III]	4502.78	[Fe III]	4508.71	N II
4492.933	Fe II]	4498.7880	Fe II]	4502.847	Ni II	4508.7122	Fe I]
4493.0297	Ne I	4498.889	Ni II	4502.9	Na IV	4508.714	Ar I
4493.096	Ne I	4498.919	Na I	4502.9338	Ni I]	4508.824	N II
4493.116	Ne I	4498.95	Mg III]	4502.96	Mg III]	4508.922	Ni III]
4493.140	Si III]	4499.105	Ar I	4502.971	Ni III]	4509.	C V
4493.376	O III]	4499.124	S II]	4503.077	Ni II	4509.1089	Ca I
4493.378	Ne I	4499.231	S II]	4503.143	Ne II	4509.219	Na II
4493.6	O V	4499.241	O II	4503.352	[Ni III]	4509.394	Ne II
4493.669	Ne I	4499.42	Fe V]	4503.4198	Fe II]	4509.4789	Fe II
4493.7075	Fe I	4499.58	O V	4503.61	N IV	4509.534?	Ni II
4493.718	Fe III]	4499.585	Ni II]	4503.63	Al IV	4509.5524	Fe II
4493.8943	[Fe II]	4499.778	Ni II	4503.709	Fe IV]	4509.589	Fe III]
4493.93909	Fe I]	4499.79836	Fe I]	4503.75	Fe V	4509.7191	Fe II]
4494.03	Fe III]	4499.79976	Ar II	4503.8539	Fe I]	4509.748	[Ni III]
4494.05055	Ar II	4499.830	Ni II	4503.863	Ni II]	4509.75	Na II
4494.0530	Fe I]	4499.845	Ne II	4503.902	Ni II]	4509.971	C II]
4494.063	Fe III]	4499.85567	Fe I]	4503.920	Ne II		
4494.077	Fe III]	4499.9	Na IV	4504.018	Ne II]		
		4500.	Fe XV]	4504.060?	Ni II		