

## Dynamic Design: The Cleanroom

## Mapping It Out

### STUDENT DATA/REPORTING SHEET: MAPPING IT OUT: MATERIAL CHART

#### B Array

All of the Collectors on the B Array are 700 microns (.0276 in) thick.

B Array Full Hexagon: Collectors 01 - 55			
Material	Code	Quantity	Color Code
CZ Silicon	CSI	9	
FZ Silicon	FSI	20	
Diamond on Silicon	DOS	3	
Sapphire	SAP	4	
Silicon on Sapphire	SOS	5	
Aluminum on Sapphire	AIOS	4	
Gold on Sapphire	AuOS	3	
Germanium	GER	5	
Carbon/Cobalt/Gold on Sapphire	CCoAuOS	1	

B Array Half Hexagon: Collectors 60-65			
Material	Code	Quantity	Color Code
Aluminum on Sapphire	AIOS	2	
Gold on Sapphire	AuOS	2	
Carbon/Cobalt/Gold on Sapphire	CCoAuOS	2	

B Array Materials on Collectors							
Collector	Material	Collector	Material	Collector	Material	Collector	Material
01	SOS	17	SOS	33	SAP	49	CSI
02	FSI	18	GER	34	AuOS	50	CSI
03	SOS	19	FSI	35	FSI	51	DOS
04	GER	20	FSI	36	FSI	52	CCoAuOS
05	SOS	21	FSI	37	FSI	53	CSI
06	CSI	22	FSI	38	FSI	54	N/A
07	CSI	23	FSI	39	GER	55	CSI
08	GER	24	FSI	40	FSI		
09	SOS	25	FSI	41	FSI		
10	AuOS	26	CSI	42	SAP		
11	AIOS	27	AIOS	43	DOS	60	AuOS
12	FSI	28	SAP	44	CSI	61	AIOS
13	FSI	29	FSI	45	AIOS	62	AIOS
14	AIOS	30	AuOS	46	SAP	63	AuOS
15	FSI	31	FSI	47	FSI	64	CCoAuOS
16	CSI	32	GER	48	DOS	65	CCoAuOS

**E Array**

The E Array is located below the B Array and above the H Array. The E Array is used for coronal mass ejection solar wind collection. All of the Collectors on the E Array are 650 microns (.0256 in) thick.

<b>E Array Full Hexagon: Collectors 01 - 55</b>			
Material	Code	Quantity	Color Code
CZ Silicon	CSI	9	
FZ Silicon	FSI	17	
Diamond on Silicon	DOS	4	
Sapphire	SAP	4	
Silicon on Sapphire	SOS	4	
Aluminum on Sapphire	AIOS	5	
Gold on Sapphire	AuOS	6	
Germanium	GER	5	

<b>E Array Half Hexagon: Collectors 60-65</b>			
Material	Code	Quantity	Color Code
Sapphire	SAP	2	
Gold on Sapphire	AuOS	2	
Aluminum on Sapphire	AIOS	2	

<b>E Array Materials on the Collectors</b>							
Collector	Material	Collector	Material	Collector	Material	Collector	Material
01	FSI	17	FSI	33	GER	49	AIOS
02	FSI	18	FSI	34	FSI	50	DOS
03	CSI	19	AIOS	35	SAP	51	AuOS
04	CSI	20	GER	36	AIOS	52	FSI
05	AIOS	21	SOS	37	AuOS	53	FSI
06	AuOS	22	AuOS	38	SAP	54	N/A
07	DOS	23	DOS	39	CSI	55	CSI
08	SOS	24	FSI	40	FSI		
09	FSI	25	AuOS	41	SAP		
10	FSI	26	DOS	42	AuOS		
11	SOS	27	FSI	43	FSI	60	AuOS
12	FSI	28	FSI	44	SOS	61	AuOS
13	CSI	29	SAP	45	GER	62	SAP
14	FSI	30	AIOS	46	CSI	63	SAP
15	GER	31	GER	47	FSI	64	AIOS
16	CSI	32	CSI	48	CSI	65	AIOS

**H Array**

The H Array is located below the E Array and above the L Array. The H Array is used for high speed solar wind collection. All of the Collectors on the H Array are 600 microns (.0237 in) thick.

<b>H Array Full Hexagon: Collectors 01 - 55</b>			
Material	Code	Quantity	Color Code
CZ Silicon	CSI	7	
FZ Silicon	FSI	17	
Diamond on Silicon	DOS	4	
Sapphire	SAP	4	
Silicon on Sapphire	SOS	4	
Aluminum on Sapphire	AIOS	5	
Gold on Sapphire	AuOS	7	
Germanium	GER	6	

<b>H Array Half Hexagon: Collectors 60-65</b>			
Material	Code	Quantity	Color Code
Gold on Sapphire	AuOS	6	

<b>H Array Materials on the Collectors</b>							
Collector	Material	Collector	Material	Collector	Material	Collector	Material
01	FSI	17	FSI	33	SAP	49	AIOS
02	CSI	18	DOS	34	FSI	50	DOS
03	FSI	19	AuOS	35	AIOS	51	AuOS
04	FSI	20	SOS	36	SAP	52	FSI
05	SOS	21	GER	37	AuOS	53	FSI
06	DOS	22	AIOS	38	GER	54	N/A
07	AuOS	23	FSI	39	CSI	55	CSI
08	GER	24	CSI	40	CSI		
09	CSI	25	GER	41	GER		
10	CSI	26	AIOS	42	SOS		
11	GER	27	SAP	43	FSI	60	AuOS
12	FSI	28	AuOS	44	FSI	61	AuOS
13	AIOS	29	FSI	45	SAP	62	AuOS
14	FSI	30	DOS	46	FSI	63	AuOS
15	SOS	31	AuOS	47	FSI	64	AuOS
16	FSI	32	FSI	48	AuOS	65	AuOS

**L Array**

The L Array is located below the H Array. The L Array is used for low speed solar wind collection. All of the Collectors on the L Array are 550 microns (.0217 in) thick.

<b>L Array Full Hexagon: Collectors 01 - 55</b>			
Material	Code	Quantity	Color Code
CZ Silicon	CSI	9	
FZ Silicon	FSI	22	
Diamond on Silicon	DOS	4	
Sapphire	SAP	4	
Silicon on Sapphire	SOS	4	
Aluminum on Sapphire	AIOS	4	
Gold on Sapphire	AuOS	4	
Germanium	GER	3	

<b>L Array Half Hexagon: Collectors 60-65</b>			
Material	Code	Quantity	Color Code
Gold on Sapphire	AuOS	6	

<b>L Array Materials on the Collectors</b>							
Collector	Material	Collector	Material	Collector	Material	Collector	Material
01	FSI	17	FSI	33	SAP	49	AIOS
02	CSI	18	DOS	34	AuOS	50	AuOS
03	FSI	19	FSI	35	FSI	51	DOS
04	FSI	20	SOS	36	FSI	52	CSI
05	SOS	21	FSI	37	SAP	53	FSI
06	FSI	22	CSI	38	SOS	54	N/A
07	FSI	23	FSI	39	CSI	55	CSI
08	DOS	24	CSI	40	CSI		
09	CSI	25	FSI	41	FSI		
10	CSI	26	FSI	42	SAP		
11	FSI	27	GER	43	DOS	60	AuOS
12	AIOS	28	AuOS	44	FSI	61	AuOS
13	FSI	29	SOS	45	AIOS	62	AuOS
14	GER	30	GER	46	FSI	63	AuOS
15	AuOS	31	AIOS	47	FSI	64	AuOS
16	FSI	32	FSI	48	SAP	65	AuOS

**C Array**

The C Array is located in the Canister Cover and is used to collect bulk solar wind. All of the Collectors on the C Array are 700 microns (.0276 in) thick.

<b>C Array Full Hexagon: Collectors 01 - 55</b>			
Material	Code	Quantity	Color Code
CZ Silicon	CSI	18	
FZ Silicon	FSI	16	
Diamond on Silicon	DOS	3	
Sapphire	SAP	4	
Silicon on Sapphire	SOS	4	
Aluminum on Sapphire	AIOS	5	
Gold on Sapphire	AuOS	5	

<b>C Array Half Hexagon: Collectors 60-65</b>			
Material	Code	Quantity	Color Code
Gold on Sapphire	AuOS	3	
Aluminum on Sapphire	AIOS	3	

<b>C Array Materials on the Collectors</b>							
Collector	Material	Collector	Material	Collector	Material	Collector	Material
<b>01</b>	CSI	<b>17</b>	CSI	<b>33</b>	AIOS	<b>49</b>	AIOS
<b>02</b>	CSI	<b>18</b>	FSI	<b>34</b>	FSI	<b>50</b>	FSI
<b>03</b>	CSI	<b>19</b>	SOS	<b>35</b>	FSI	<b>51</b>	FSI
<b>04</b>	CSI	<b>20</b>	SOS	<b>36</b>	AuOS	<b>52</b>	CSI
<b>05</b>	FSI	<b>21</b>	SAP	<b>37</b>	FSI	<b>53</b>	CSI
<b>06</b>	FSI	<b>22</b>	AuOS	<b>38</b>	DOS	<b>54</b>	CSI
<b>07</b>	FSI	<b>23</b>	FSI	<b>39</b>	CSI	<b>55</b>	CSI
<b>08</b>	FSI	<b>24</b>	CSI	<b>40</b>	CSI		
<b>09</b>	CSI	<b>25</b>	FSI	<b>41</b>	FSI		
<b>10</b>	CSI	<b>26</b>	AuOS	<b>42</b>	DOS		
<b>11</b>	AIOS	<b>27</b>	SOS	<b>43</b>	AuOS	<b>60</b>	AIOS
<b>12</b>	SAP	<b>28</b>	SOS	<b>44</b>	DOS	<b>61</b>	AuOS
<b>13</b>	SAP	<b>29</b>	FSI	<b>45</b>	AIOS	<b>62</b>	AuOS
<b>14</b>	SAP	<b>30</b>	AuOS	<b>46</b>	CSI	<b>63</b>	AIOS
<b>15</b>	AIOS	<b>31</b>	FSI	<b>47</b>	CSI	<b>64</b>	AIOS
<b>16</b>	CSI	<b>32</b>	CSI	<b>48</b>	FSI	<b>65</b>	AuOS