Cade anticipates claims 1-4 and 10 of U.S. Patent No. 5,591,678 to Bendik et al. ("the '678 Patent") under 35 U.S.C. § 102

Prior Art Cited in this Chart:
U.S. Patent No. 4,599,792 to Cade et al. ("Cade")

Claim Language	Cade
Claim 1	
A method of fabricating a microelectronic device, comprising the steps of:	"The invention pertains generally to integrated circuits. In particular, it pertains to the fabrication of a buried field shield beneath other semiconductor devices on an integrated circuit chip." **1:8-11**.
furnishing a first substrate having an etchable layer, an etch-stop layer overlying the etchable layer, and a wafer overlying the etch-stop layer;	"Fabrication in the second embodiment begins with a heavily doped p+ seed substrate 80, shown in FIG. 15, on which is grown the n- epitaxial layer 54." **7:4-6.** "Then the n+ emitter layer 56 and the thin dielectric layer 58 are grown just as in the first embodiment." **7:10-12**. **Figure 15**
forming a microelectronic circuit element in the exposed side of the wafer of the first substrate opposite to the side overlying the etch-stop layer;	"The field shield 64 and the boron-rich quartz 66 are likewise formed by similar procedures using the laser-scribed alignment marks for any required definition including possible definition of the emitter layer 56." **7:24-27**. "It is anticipated that the n+ region 56 is delineated on top of the dielectric layer 58 so that devices, such as

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	capacitors, can be fabricated using both the insulating layer 58 and the field shield 64 as constituent elements." **7:64-68**. **Figure 15**
attaching the wafer of the first substrate to a second substrate; and	"The mechanical substrate 68 of silicon is then anodically bonded to the quartz 66 by applying voltage to a voltage probe 84 with the seed substrate 80 grounded." **7:27-30**. **Figure 15**
etching away the etchable layer of the first substrate down to the etch-stop layer.	"The etch-back of the seed substrate 80 is performed with hydrofluoric-nitric-acetic acid (HNA) in the proportions of 1:3:8. The etchant HNA is an isotropic etch and attacks heavily doped p+ or n+ silicon. However, it does not appreciably attack silicon doped below the level of 10^{18} /cm^3. The etch stopping

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	characteristics are improved by the p+ /n junction at the interface 82.” **7:31-37**. **Figure 16**
Claim 2	
The method of claim 1, further including an additional step, after the step of etching, of patterning the etch-stop layer.	“The support transistors 110 and 112, the field shield contacts 106 and 108 and the storage cells are all isolated by dielectric trenches 124 extending from the surface to the dielectric layer 58.” **8:23-27.** **Figure 16** **Figure 17**
Claim 3	
The method of claim 2,	“The field shield 104 is connected to the surface by

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Claim Language	Cade
further including an additional step, after the step of patterning, of forming an electrical connection to the microelectronic circuit element through the patterned etch-stop layer and through the wafer.	field shield reach-throughs or contacts 106 and 108.” **8:15-17**. **Figure 17**
Claim 4	
The method of claim 2, further including an additional step, after the step of patterning, of forming an electrical connection to the wafer through the patterned etch-stop layer.	“A planar contact is made to the n epitaxial layer 18[sic][1] with an n+ layer 120 connected to the surface with a diffused n+ reach-through 122.” **8:20-22**. **Figure 17**
Claim 10	
The method of claim 1, wherein the step of etching includes the step of contacting the etchable layer to a liquid etchant that attacks the	“The etch-back of the seed substrate 80 is performed with hydrofluoric-nitric-acetic acid (HNA) in the proportions of 1:3:8. The etchant HNA is an isotropic etch and attacks heavily doped p+ or n+ silicon. However, it does not appreciably attack silicon doped below the level of 10^{18} /cm^3. The etch stopping

[1] The reference number 18 to the n^- epitaxial layer is a typographical error. The n^- epitaxial layer should correspond to reference number 118, as seen in Figure 17.

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Claim Language	Cade
etchable layer rapidly and the etch-stop layer slowly.	characteristics are improved by the p+ /n junction at the interface 82." **7:31-37**.

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