Highlights

Recent developments in analytical and theoretical methods for defect studies in semiconductors

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Table 1
Summary of used pretrained CNN models and feature extraction variants

Base model	Model type	Feature processing	Output dimension	Model Label
EfficientNetB7	Classifier	None	1000	ENB7:CL
	Feature extractor	None	2560	ENB7:FE
		PCA	39	ENB7:FE:P
MobileNetV2	Classifier	None	1000	MNV2:CL
	Feature extractor	None	1280	MNV2:FE
		PCA	124	MNV2:FE:P
NASNetLarge	Classifier	None	1000	NAS:CL
		PCA	30	NAS:CL:P
	Feature extractor	None	4032	NAS:FE
ResNet152V2	Classifier	None	1000	R152:CL
	Feature extractor	None	2048	R152:FE
Xception	Classifier	None	1000	XCP:CL
	Feature extractor	None	2048	XCP:FE
YOLOv4 (CSPDarknet53)	Feature extractor (raw, top layer)	None	86528	YL:FE1
		PCA	137	YL:FE1:P
CSPDarknet53 (YOLO backbone)	Feature extractor (raw, top & penultimate layers)	None	433640	YL:FE2
		PCA	142	YL:FE2:P
	Feature extractor (pooled, top layer)	None	512	YL:FP1
	Feature extractor (pooled, top & penultimate layers)	None	1024	YL:FP2

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ABSTRACT

abstract abstract

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2. Methodology

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Conclusion Conclusion

Acknowledgments

Supplementary data

Supplementary data to this article can be found online at `http://surl.li/qneich`

Data availability

Data will be made available on request.

References

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