Electronic Supplementary Material (ESI) for Analytical Methods.

Electronic Supporting information

Extraction of plant growth regulators present in *Kappaphycus alvarezii* sap by imidazolium based ionic liquids: Detection and quantification by HPLC–DAD technique

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Extraction of sap from fresh Kappaphycus alvarezii

Extraction of *Kappaphycus* sap: 500 g of fresh *Kappaphycus alvarezii* seaweed was mechanically squeezed using kitchen mixture grinder followed by filtration to yield *Kappaphycus* sap with 75% (*w/w*) yield.

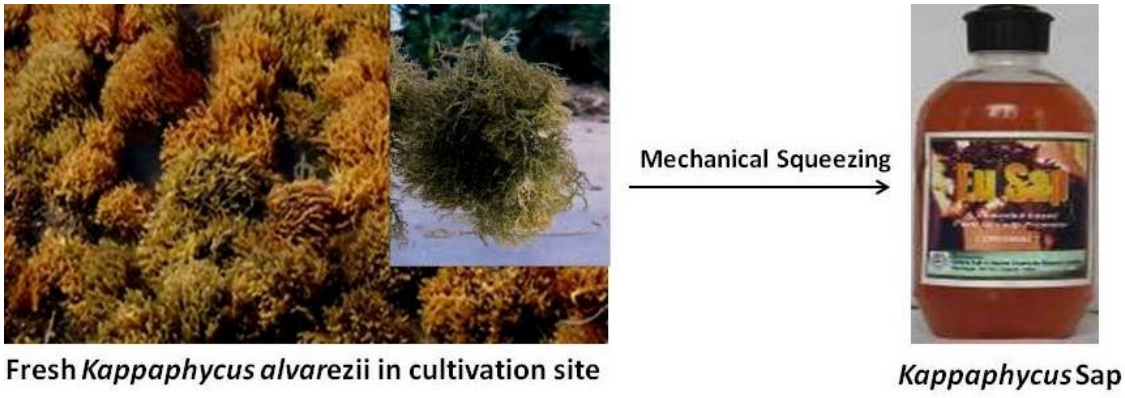

Figure S1. Extraction of *Kappaphycus* sap from fresh *Kappaphycus alvarezii* seaweed

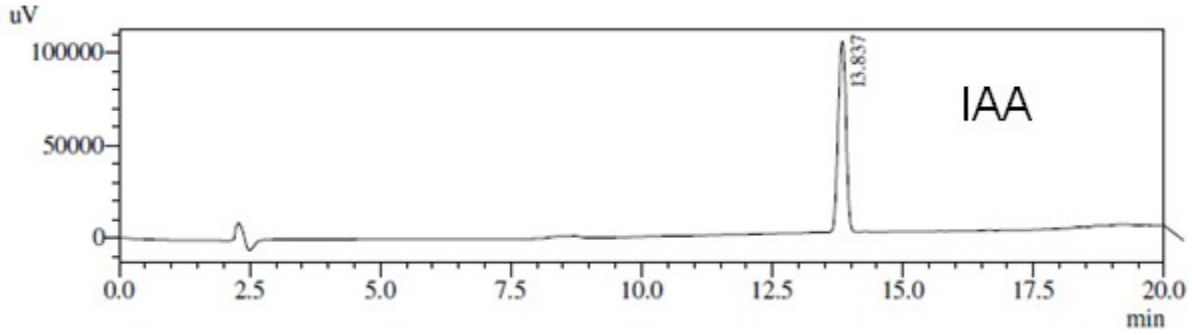

Figure S2. HPLC Chromatogram of standard IAA

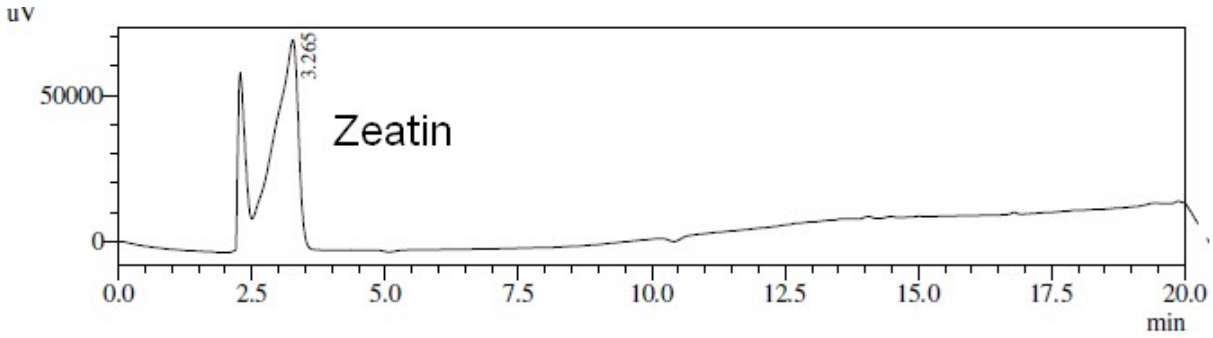

Figure S3. HPLC Chromatogram of standard trans-zeatin

Table S1: Details of calibration plot of IAA and Zeatin

Standard compound	Calibration equation	Regression coefficient	Linearity range	RSD%
IAA	Y=35502X+10096	0.985	3-25 $mg._L^{-1}$	0.2
Zeatin	Y=60237X+47922	0.974	3-25 $mg._L^{-1}$	1.24

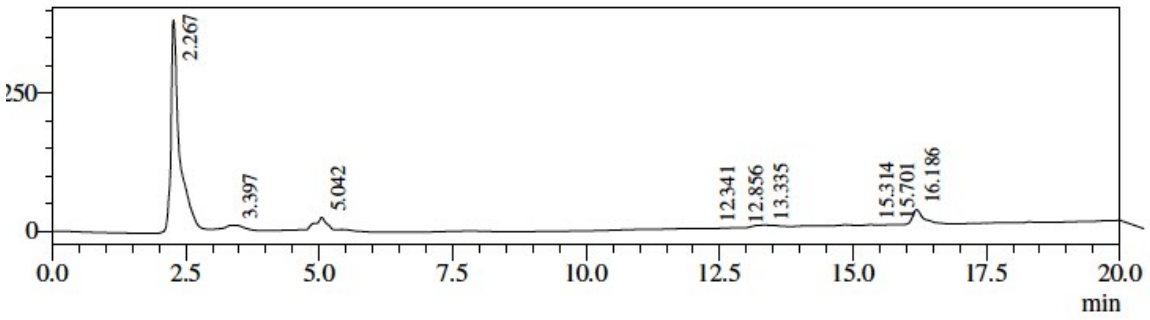

Figure S4 : HPLC chromatogram of diluted [Bmim][PF_6] phase extracted at 40 °C

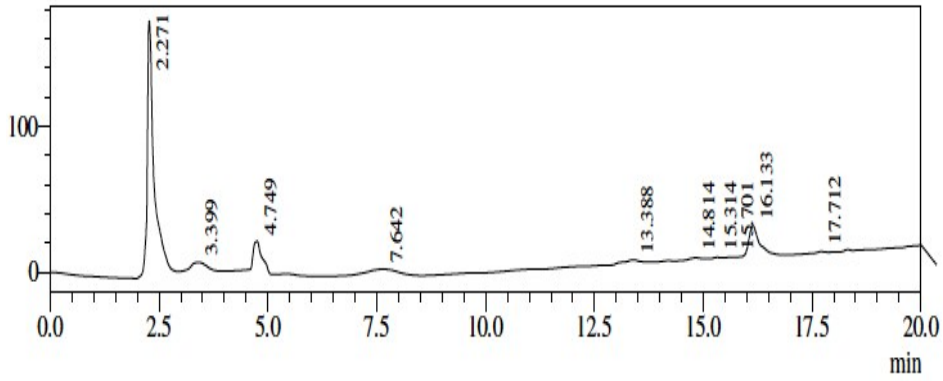

Figure S5 : HPLC chromatogram of diluted [Bmim][PF_6] phase extracted at 50 °C

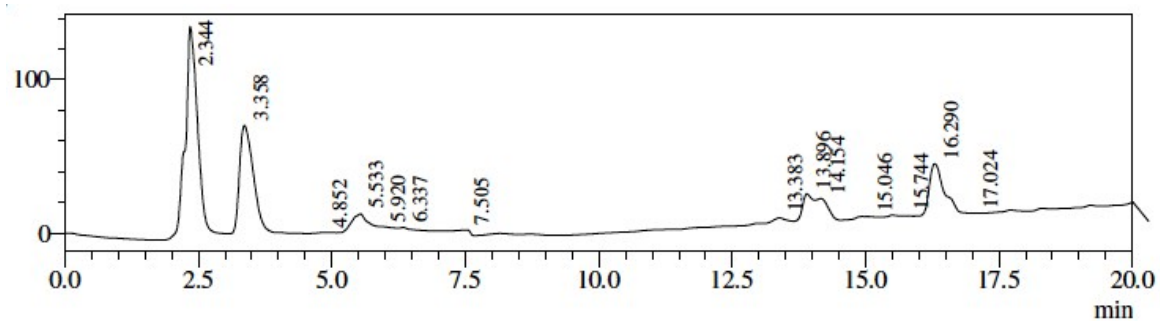

Figure S6 : HPLC chromatogram of diluted [Bmim][PF_6] phase extracted at 40 °C after spiking with IAA and *trans*-zeatin