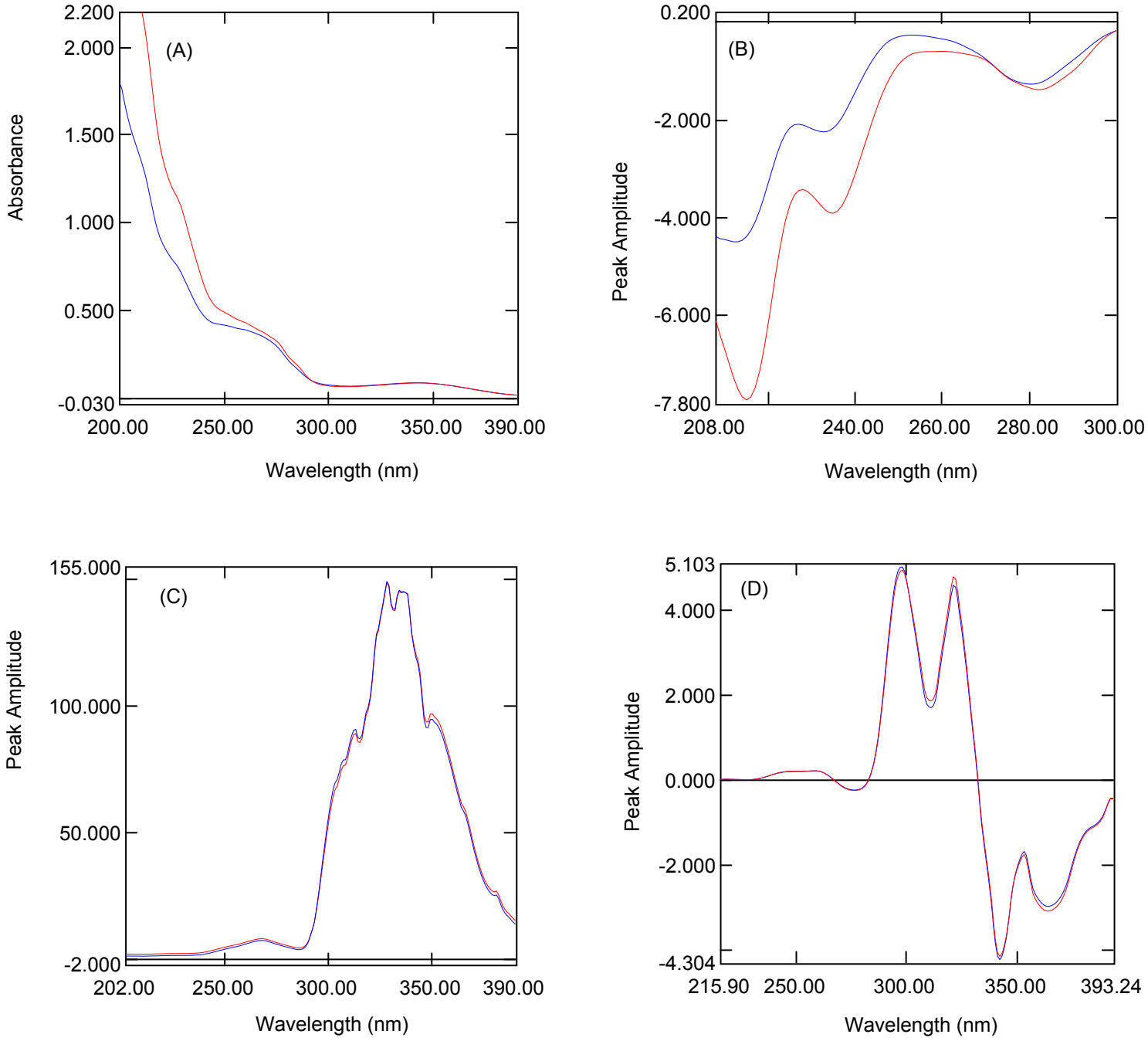

Figure S1. Normal UV spectra of formulation (A), first derivative spectra (B), ratio spectra of AZE (C) First derivative of ratio spectra of AZE (D)

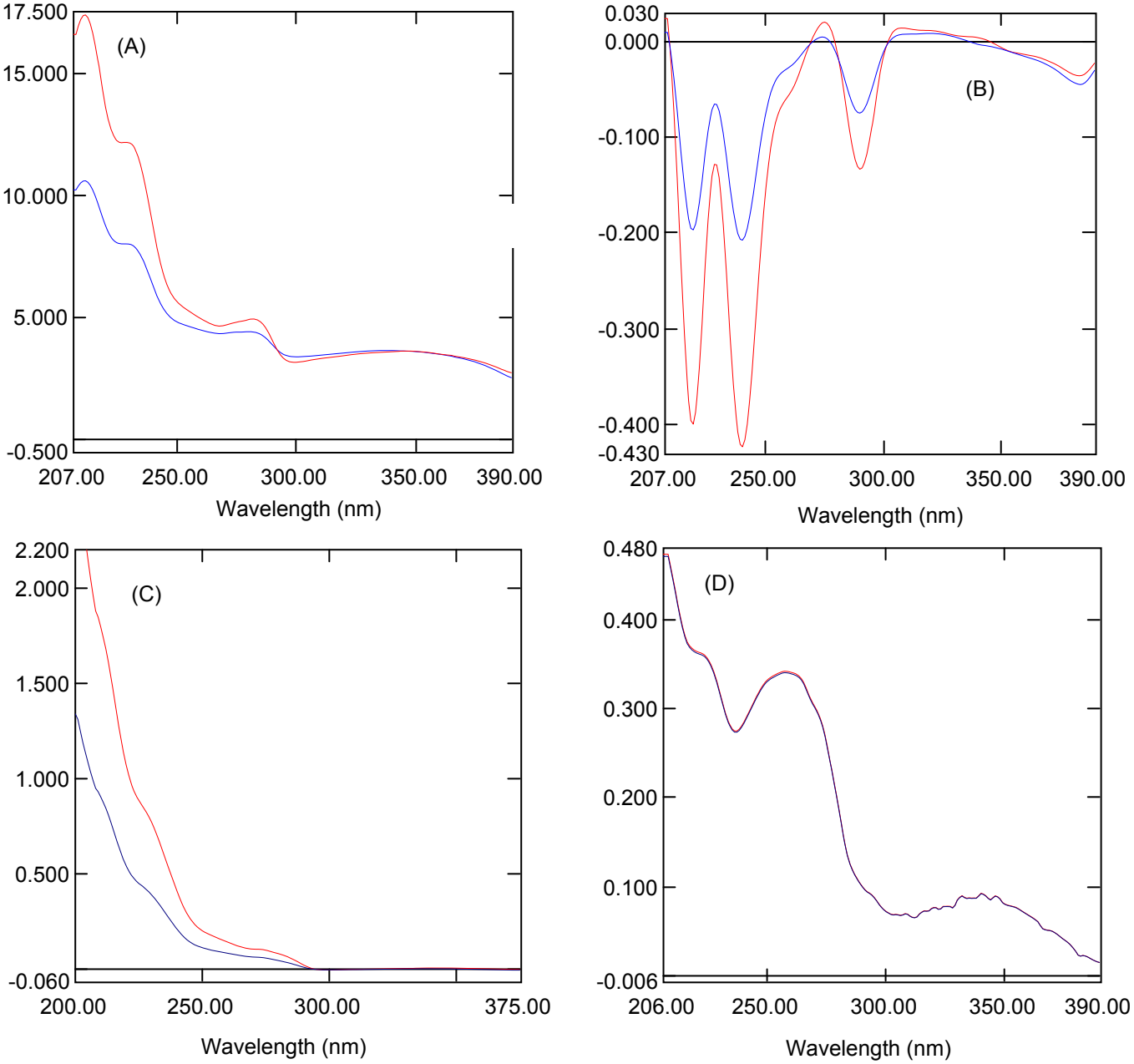

Figure S2 : Ratio spectra of CTL (A), First derivative of ratio spectra of CTL (B), Zero order spectra of CTL (C) and AZE (D)

Figure S3: Analytical Greenness report sheet

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1. Sample treatment
2. Sample amount
3. Device positioning
4. Sample prep. stages
5. Automation, miniaturization
6. Derivatization
7. Waste
8. Analysis throughput
9. Energy consumption
10. Source of reagents
11. Toxicity
12. Operator's safety

Criteria	Score	Weight
1. Direct analytical techniques should be applied to avoid sample treatment.	0.85	2
2. Minimal sample size and minimal number of samples are goals.	1.0	2
3. If possible, measurements should be performed in situ.	1.0	2
4. Integration of analytical processes and operations saves energy and reduces the use of reagents.	1.0	2
5. Automated and miniaturized methods should be selected.	0.75	2
6. Derivatization should be avoided.	1.0	2
7. Generation of a large volume of analytical waste should be avoided, and proper management of analytical waste should be provided.	0.48	2
8. Multi-analyte or multi-parameter methods are preferred versus methods using one analyte at a time.	0.94	2
9. The use of energy should be minimized.	0.86	2
10. Reagents obtained from renewable sources should be preferred.	1.0	2
11. Toxic reagents should be eliminated or replaced.	1.0	2
12. Operator's safety should be increased.	1.0	2

The software is open access and available from https://mostwiedzy.pl/AGREE

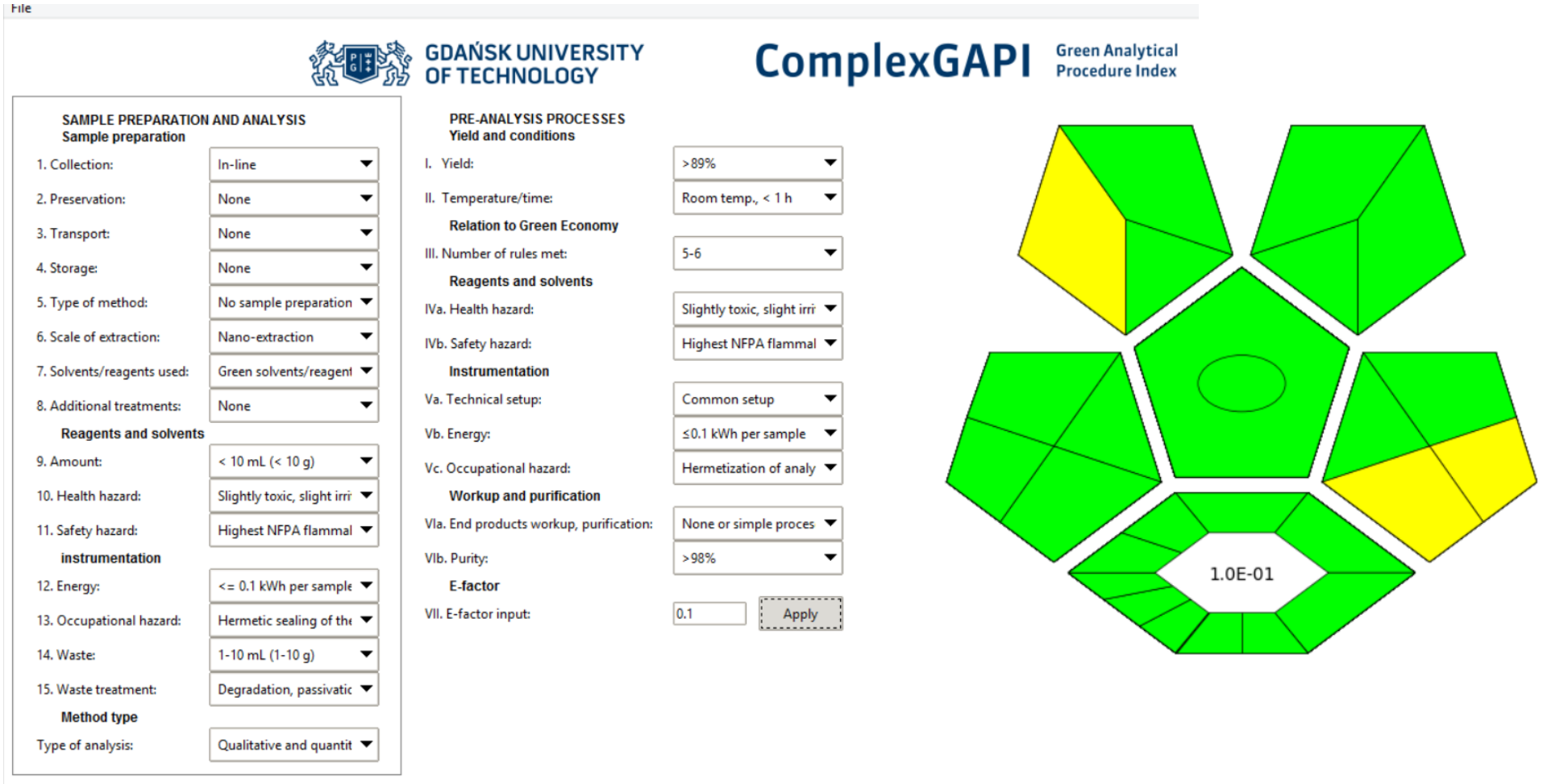

Figure S4: ComplexGAPI for spcetroscopic method

Reference

1. J. Płotka-Wasylka, and W. Wojnowski, "Complementary green analytical procedure index (ComplexGAPI) and software," *Green Chemistrty*, vol. 23, pp. 8657-8665, 2021. (A compiled, stand-alone version is currently available for Windows and can be downloaded from http://mostwiedzy.pl/complexgapi

RED PRINCIPLES (analytical performance)			R1: Scope of application	R2: LOD and LOQ			R3: Precision			R4: Accuracy		
	Method number	Method name	0-100	LOD	LOQ	0-100	RSD% (repeatability)	RSD% (reproducibility)	0-100	Relative error (%)	Recovery (%)	0-100
	1	UV spectroscopic method	95	0.128-0.328	0.38-0.997	95	0.397-1.803	0.893-1.758	100	0.924-1.607	98.37%10.38%	100

GREEN PRINCIPLES (green chemistry)			G1: Toxicity of reagents (impact and biodegradation)		G2: Amount of reagents and waste			G3: Concumption of energy and other media	G4: Direct impacts (safety, use of animals and GMOs)			
	Method number	Method name	Total number of pictograms	0-100	Reagent consumption	Waste production	0-100	1-100	Occupational hazards	Safety of users (0-100)	Use of animals (0 if no, 1 if yes)	Use of GMO (0 if no, 1 if yes)
	1	UV spectroscopic method	Safe and biodegradable	95	less than 10ml	Less than 10 ml	95	95	Not Hazardus	100	0	0

BLUE PRINCIPLES (practical side)			B1: Cost-efficiency		B2: Time-efficiency		B3: Requirements			B4: Operational simplicity		
	Method number	Method name	Total cost	0-100	Speed of analysis	0-100	Sample consumption	Sample consumption (0-100)	Other needs: advanced instruments, skills, facilities (0-100)	Miniaturization (0-100)	Integration and automation (0-100)	Portability (0-100)
	1	UV spectroscopic method	5 USD per sample	100	50 samples /hour	100	in micrograms	100	100	95	95	95

Method number	Method name	R (%)	G (%)	B (%)	Whiteness (%)
1	UV spectroscopic method	97.5	96.3	98.8	97.5

Table S1. White analytical chemistry Evaluation

Reference: P. M. Nowa, and P. Kościelniak, "What Color Is Your Method? Adaptation of the RGB Additive Color Model to Analytical Method Evaluation," *Analytical Chemistry*, vol. 91, no. 16, pp. 10343-10352, **2019.** DOI: 10.1021/acs.analchem.9b01872. The excel is available for download from the https://pubs.acs.org/doi/pdf/10.1021/acs.analchem.9b01872