International Journal of Science, Strategic Management and Technology
Volume **02** Issue **04** April-**2026** | ISSN: **3108-1762 (Online)** | Impact Factor: 3.8
An International, Peer-Reviewed, Open Access Scholarly Journal Indexed in recognized academic databases

Molecular Gastronomy in Fusion Cuisine: A Scientific and Culinary Perspective

Dr. Jaisree Anand, Ms.Deepika.R

[1] Professor School of Hotel &Catering Management, Vels Institute of Science, Technology and Advanced Studies, Pallavaram, Chennai, India.
[2] Student School of Hotel &Catering Management, Vels Institute of Science

https://doi.org/10.55041/ijsmt.v2i4.524

Cite this Article: Deepika.R, (2026). Molecular Gastronomy in Fusion Cuisine: A Scientific and Culinary Perspective. International Journal of Science, Strategic Management and Technology, *02*(04). https://doi.org/10.55041/ijsmt.v2i4.524

Abstract: Molecular gastronomy has revolutionized contemporary culinary practices by integrating scientific principles into cooking techniques, thereby transforming traditional food preparation into an innovative and experimental discipline. This study explores the application of molecular gastronomy within fusion cuisine, highlighting its role in enhancing sensory experiences, redefining textures, and creating novel flavor combinations. Fusion cuisine, which blends elements from diverse culinary traditions, benefits significantly from molecular techniques such as spherification, gelification, emulsification, and sous-vide cooking. These methods not only improve aesthetic appeal but also optimize flavor delivery and nutritional retention. The research adopts a qualitative approach, analyzing existing literature, culinary experiments, and case studies from modern gastronomy. The findings suggest that molecular gastronomy fosters creativity and innovation, allowing chefs to deconstruct and reconstruct traditional dishes while maintaining cultural authenticity. However, challenges such as high costs, technical complexity, and limited accessibility hinder widespread adoption. The study concludes that the integration of science and culinary art in fusion cuisine represents a transformative trend in the global food industry, offering both gastronomic innovation and enhanced dining experiences.

Keywords: molecular gastronomy, fusion cuisine, culinary innovation, experiential dining.

Introduction: The evolution of gastronomy has witnessed a significant shift from traditional cooking practices to scientifically driven culinary innovation. Molecular gastronomy, a discipline that merges food science with culinary arts, has emerged as a transformative approach in modern kitchens [1]. Coined in the late 20th century, molecular gastronomy focuses on understanding the physical and chemical transformations that occur during cooking. It enables chefs to manipulate ingredients at a molecular level, thereby redefining taste, texture, aroma, and presentation [2]. Fusion cuisine, on the other hand, represents the blending of culinary traditions from different cultures to create innovative dishes. With globalization and increased cultural exchange, fusion cuisine has gained immense popularity in the hospitality industry [3]. The integration of molecular gastronomy into fusion cuisine has further enhanced its creative potential, allowing chefs to experiment beyond conventional boundaries. The scientific techniques used in molecular gastronomy such as spherification, foaming, gelification, and vacuum cooking enable the transformation of ingredients into unexpected forms. For instance, liquids can be converted into spheres resembling caviar, while foams can intensify flavors without altering nutritional composition [4]. These techniques are particularly valuable in fusion cuisine, where contrasting culinary elements can be harmonized through innovative methods [5]. Moreover, molecular gastronomy contributes to the sensory dimension of dining. Modern consumers seek not only taste but also visual appeal and experiential dining. Fusion dishes prepared using molecular techniques offer multi-sensory experiences, combining visual artistry with enhanced flavor profiles. This aligns with the growing demand for experiential gastronomy in luxury hotels and fine-dining establishments [6]. Despite its advantages, molecular gastronomy also presents challenges. The requirement for specialized equipment,

scientific knowledge, and skilled labor can limit its accessibility. Additionally, there are concerns regarding the overuse of additives and the potential loss of traditional culinary identity [7]. This study aims to examine the role of molecular gastronomy in fusion cuisine from both scientific and culinary perspectives . It explores how scientific techniques enhance creativity, improve food quality, and redefine gastronomic experiences while addressing the limitations associated with this innovative approach.

Review of Literature

The growing significance of molecular gastronomy in modern culinary innovation and fusion cuisine is emphasized by recent studies. Research indicates that molecular gastronomy has enhanced food presentation, sensory appeal, and consumer satisfaction by combining scientific techniques with creative cooking [8]. The authors also highlight that advanced methods and tools, such as hydrocolloids and flash freezing, support innovative and sustainable food production systems. The explored application of molecular gastronomy in contemporary kitchens and found that techniques like sous-vide, spherification, and liquid nitrogen freezing have significantly improved precision cooking and flavor innovation [9]. The study also identifies challenges that hinder widespread adoption, including high costs and limited accessibility.In a separate review, A study investigated how molecular cooking methods impact functional food compounds [10]. They concluded that these techniques can preserve or even enhance nutritional quality while improving texture and visual appeal, resulting in more inventive and healthful food products.According to research on fusion cuisine the evolution of fusion culinary practices has been profoundly influenced by globalization and cultural interactions [11]. The study illustrates how blending culinary traditions leads to creative recipes that shape consumer preferences and contemporary gastronomy [12]. Molecular gastronomy and fusion cuisine are two of the most significant new culinary trends, according to a thorough analysis by several writers published in the Journal of Agriculture and Food Research [13]. The study highlights how cross-cultural exchanges and technical developments have greatly influenced the development of modern cuisine [14]. Additionally, a study looked at cutting-edge technology like ultrasonography in gastronomy and came to the conclusion that contemporary scientific methods are pushing the limits of food preparation, allowing chefs to improve texture, flavor extraction, and cooking efficiency [15].

According to a study in experimental food chemistry, scientific cooking experimentation is shaping the future of gastronomy by fostering innovation in culinary techniques and introducing novel preparation methods [16]. The study emphasizes the importance of chemistry in creating unique recipes and enhancing food quality. Similarly, a study focused on the physics behind flavor generation and highlighted that successful flavor pairing a key concept in both molecular gastronomy and fusion cuisine requires an understanding of the chemical interactions between ingredients [17]. A study examined advancements in experimental food chemistry, revealing that chefs can now create distinctive textures and structures, which enhance the overall sensory experience of the food [18]. Lastly, the study explored molecular gastronomy as a tool for advancing food science and concluded that it is essential for rethinking traditional cooking techniques, fostering creativity, and enhancing the development of modern fusion cuisine practices [19].

Research Methodology

To investigate the role of molecular gastronomy in fusion cuisine and its effects on culinary innovation, food quality, presentation, and consumer perception, this study adopts a Pearson Correlation. It utilizes both primary and secondary data sources to provide a comprehensive understanding of the topic based on relationships, Linear Regression is done to know the strength of the variables. The research employs a mixed-methods methodology, combining an in-depth literature review with survey-based primary research [20]. The qualitative component examines theoretical concepts, cooking techniques, and recent advancements in molecular gastronomy and fusion cuisine, while the quantitative component allows for statistical analysis of consumer perceptions.

Population and Sample

The target population for this study comprises urban consumers, including food enthusiasts, culinary students, and working professionals who are knowledgeable about modern dining trends. A sample of 100 respondents was selected using convenience sampling to ensure representation across various age groups and levels of culinary interest. This sample size offers valuable insights into consumer perceptions and trends regarding molecular gastronomy in fusion cuisine.

Data Collection

Primary Data: A systematic questionnaire that included both closed-ended and Likert-scale questions was used to collect primary data. The questionnaire addressed several aspects, including respondents' awareness and understanding of molecular gastronomy techniques such as spherification, emulsification, and sous-vide cooking. It also examined their preferences for fusion cuisine and innovative culinary experiences, their opinions on the novelty, taste, and presentation of molecular gastronomy-based dishes, and the challenges they perceive in implementing these culinary innovations.

Variables

Prefer Fusion cuisine : PFC
How Often Try Fusion Cuisine : OFC
Fusion Cuisine Experience : FCE
Rate of Molecular Gastronomy Dishes : MGD
Presentation Influence Food Choice : PIFC
Like To Try Molecular Gastronomy Dishes : MGD
Molecular Gastronomy Dining Satisfaction : MGDS

Secondary Data: In addition to online resources, secondary data was collected from culinary magazines and industry reports that highlight trends, case studies, and the adoption of molecular gastronomy in the Indian culinary market. This information was also gathered from research journals, articles, and books.

Data Analysis:

An examination of comments from 100 participants revealed several significant findings about molecular gastronomy in fusion cuisine. Among the respondents, majority of them preferred fusion cuisine, and some were aware of molecular gastronomy techniques. This suggests that exposure and understanding significantly influence the acceptance of novel culinary experiences. Customer satisfaction is heavily influenced by visual appeal and multisensory experiences, as shown by high ratings for food presentation

Correlations

		PFC	OFC	FCE	PIFC	MGD	MGDS
PFC	Pearson Correlation	1	.700**	.919**	.304**	.197*	.227*
	Sig. (2-tailed)		.000	.000	.002	.050	.023
	N	100	100	100	100	100	100
OFC	Pearson Correlation	.700**	1	.700**	.302**	-.109	.208*
	Sig. (2-tailed)	.000		.000	.002	.280	.038
	N	100	100	100	100	100	100
FCE	Pearson Correlation	.919**	.700**	1	.321**	.134	.227*
	Sig. (2-tailed)	.000	.000		.001	.184	.023
	N	100	100	100	100	100	100
PIFC	Pearson Correlation	.304**	.302**	.321**	1	.018	-.039
	Sig. (2-tailed)	.002	.002	.001		.858	.703
	N	100	100	100	100	100	100
MGD	Pearson Correlation	.197*	-.109	.134	.018	1	-.109
	Sig. (2-tailed)	.050	.280	.184	.858		.282
	N	100	100	100	100	100	100
MGDS	Pearson Correlation	.227*	.208*	.227*	-.039	-.109	1
	Sig. (2-tailed)	.023	.038	.023	.703	.282	
	N	100	100	100	100	100	100

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Table 1. Correlation Analysis on Molecular Gastronomy

Table 1. Displays the Pearson correlation analysis was conducted to examine the relationships among the variables PFC, OFC, FCE, PIFC, MGD, and MGDS, revealing several significant associations of varying strength. The results indicate a very strong positive correlation between PFC and FCE ($r = 0.919$, $p < 0.01$), suggesting a high degree of association and possible conceptual overlap between these two constructs. Similarly, strong positive correlations were observed between PFC and OFC ($r = 0.700$, $p < 0.01$) and between OFC and FCE ($r = 0.700$, $p < 0.01$), indicating that these three variables form a closely related cluster and may represent a central dimension within the study framework. Moderate positive relationships were found between FCE and PIFC ($r = 0.321$, $p < 0.01$), PFC and PIFC ($r = 0.304$, $p < 0.01$), and OFC and PIFC ($r = 0.302$, $p < 0.01$), implying that PIFC is reasonably associated with the core variables but retains some level of independence. In contrast, weaker yet statistically significant correlations were identified between PFC and MGD ($r = 0.197$, $p = 0.050$), PFC and MGDS ($r = 0.227$, $p < 0.05$), OFC and MGDS ($r = 0.208$, $p < 0.05$), and FCE and MGDS ($r = 0.227$, $p < 0.05$), suggesting that MGD and MGDS have limited influence within the overall model. Furthermore, severdisplaysal relationships were found to be statistically non-significant, including those between OFC and MGD, FCE and MGD, PIFC and MGD, PIFC and MGDS, and MGD and MGDS, indicating the absence of meaningful linear associations among these variables. Overall, the findings highlight that PFC, OFC, and FCE constitute a strongly interrelated core group, while PIFC plays a moderately supportive role, and MGD and MGDS function as peripheral variables with minimal impact. This pattern suggests a well-structured model in which the primary constructs are closely linked, whereas the weaker variables may serve as external or moderating factors requiring further investigation.

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.653[a]	.427	.376	.53901
a. Predictors: (Constant), MGDS, RD, PIFC, MGD, OFC, FCE, RMGD, PFC				

Table 2. Model Summary

The table 2. Demonstrates the model summary indicates that the multiple regression model demonstrates a moderate level of explanatory power. The correlation coefficient ($R = 0.653$) suggests a reasonably strong positive relationship between the dependent variable and the set of independent variables included in the model, namely MGDS, RD, PIFC, MGD, OFC, FCE, RMGD, and PFC. The coefficient of determination ($R^2 = 0.427$) reveals that approximately 42.7% of the variance in the dependent variable is explained by these predictors, indicating a moderate fit of the model. Furthermore, the adjusted R^2 value of 0.376 accounts for the number of predictors used and suggests that, after adjusting for model complexity, about 37.6% of the variance is explained, reflecting a slight reduction and indicating that some predictors may contribute less significantly to the model. The standard error of the estimate (0.53901) represents the average deviation of the observed values from the predicted values, implying a moderate level of prediction accuracy. Overall, the results suggest that while the model provides a meaningful explanation of the dependent variable, there remains a considerable proportion of unexplained variance, indicating the potential influence of other factors not

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	19.672	8	2.459	8.464	.000[b]
	Residual	26.438	91	.291		
	Total	46.110	99			
a. Dependent Variable: Awarness						
b. Predictors: (Constant), MGDS, RD, PIFC, MGD, OFC, FCE, RMGD, PFC						

Table 3. Anova of Regression.

Table 3. illustrates the ANOVA results indicate that the overall regression model is statistically significant and provides a good fit for predicting the dependent variable, Awareness. The regression sum of squares (19.672) compared to the residual sum of squares (26.438) suggests that a substantial portion of the total variation (46.110) in awareness is explained by the independent variables included in the model, namely MGDS, RD, PIFC, MGD, OFC, FCE, RMGD, and PFC. The model yields an F-value of 8.464 with 8 and 91 degrees of freedom, which is statistically significant at $p < 0.001$ (Sig. = 0.000). This indicates that the set of predictors, when considered together, significantly explains the variation in awareness and that the regression model is not due to random chance. In other words, at least one of the independent variables has a meaningful impact on awareness. The relatively lower residual mean square (0.291) compared to the regression mean square (2.459) further supports the adequacy of the model. Overall, the ANOVA findings confirm that the regression model is statistically reliable and suitable for explaining and predicting awareness, although further analysis is needed to determine the individual contribution of each predictor variable.

A recent study reveals that a significant majority of respondents (72%) are familiar with molecular gastronomy techniques. This awareness has likely increased due to exposure through media, dining establishments, and culinary education. Additionally, a large portion of participants (68%) expressed a preference for fusion cuisine, indicating an interest in creative and intercultural culinary experiences. The study also highlighted the importance of visual appeal, taste, and texture in overall dining satisfaction, with respondents rating food presentation and sensory experience highly (45% and 40%, respectively). However, several barriers to adoption were identified, including cost (25%), technical complexity (20%), and low awareness (15%). This suggests that while there is a strong desire for innovative culinary practices, practical limitations hinder broader implementation. Overall, preferences in dining are influenced by awareness, presentation, and sensory experience, yet cost and technical challenges remain significant obstacles**.**

Coefficients

The coefficients table provides a detailed understanding of how each independent variable contributes to predicting the dependent variable, Awareness, within the regression model. The intercept or constant term ($B = 1.845$, $p = 0.002$) is statistically significant, indicating that when all predictor variables are held at zero, the baseline level of awareness is positive and meaningful. This suggests that there are inherent factors influencing awareness even in the absence of the included predictors.

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.845	.570		3.237	.002
	PFC	-.085	.175	-.108	-.486	.628
	OFC	.082	.125	.094	.661	.510
	FCE	-.173	.174	-.218	-.994	.323
	RMGD	.002	.111	.002	.016	.987
	PIFC	.668	.086	.685	7.795	.000
	MGD	.023	.074	.038	.310	.757
	RD	.003	.056	.004	.048	.962
	MGDS	.057	.071	.068	.809	.421
a. Dependent Variable: Awarness						

Table 4: Coefficients of Regression

Among all the independent variables table 4. Shows how PIFC emerges as the most dominant and statistically significant predictor ($B = 0.668$, $\beta = 0.685$, $t = 7.795$, $p < 0.001$). The high standardized beta coefficient ($\beta = 0.685$) indicates a strong

positive influence on awareness, meaning that a one standard deviation increase in PIFC results in a substantial increase in awareness. This highlights PIFC as the key driver in the model and suggests that it plays a critical role in shaping awareness levels. The strength and significance of this relationship imply that PIFC may represent a central construct within the study, potentially capturing the most relevant dimension influencing the dependent variable. In contrast, the variables PFC (B = -0.085, β = -0.108, p = 0.628), OFC (B = 0.082, β = 0.094, p = 0.510), and FCE (B = -0.173, β = -0.218, p = 0.323) do not exhibit statistically significant effects on awareness. Although these variables show some directional relationships—PFC and FCE having negative coefficients and OFC having a positive coefficient—their high p-values indicate that these effects are not reliable and may be due to random variation. Interestingly, FCE shows a relatively larger negative standardized beta (β = -0.218), but its lack of statistical significance suggests that this effect cannot be confidently interpreted. These findings indicate that despite their theoretical importance or correlation with other variables, they do not independently contribute to predicting awareness when included in the regression model. Similarly, RMGD (B = 0.002, β = 0.002, p = 0.987), MGD (B = 0.023, β = 0.038, p = 0.757), RD (B = 0.003, β = 0.004, p = 0.962), and MGDS (B = 0.057, β = 0.068, p = 0.421) demonstrate extremely weak and statistically non-significant relationships with awareness. Their coefficients are very close to zero, and their p-values are far above the conventional significance threshold of 0.05, indicating that these variables have negligible explanatory power in the model. This suggests that these factors do not meaningfully influence awareness or that their effects may be mediated or overshadowed by stronger variables such as PIFC. The standardized beta coefficients provide further clarity on the relative importance of each predictor. PIFC clearly stands out with a substantially higher beta value compared to all other variables, whose beta values remain minimal and statistically insignificant. This reinforces the conclusion that PIFC is the only variable exerting a meaningful and reliable impact on awareness in this model. Overall, while the regression model as a whole is statistically significant (as confirmed by the ANOVA results), the coefficients analysis reveals that only PIFC significantly contributes to explaining awareness, whereas all other variables fail to show independent predictive power. This pattern may indicate potential among some predictors, overlapping constructs, or the possibility that the excluded variables influence awareness indirectly rather than directly. Therefore, future research should consider refining the model by focusing on PIFC as the primary predictor, re-evaluating the role of other variables, or exploring mediating and moderating relationships to better understand their contributions.

Findings

The findings of the study are derived from the correlation, regression model summary, ANOVA, and coefficients analysis, providing a comprehensive understanding of the relationships among the variables and their impact on awareness. The correlation analysis revealed that PFC, OFC, and FCE are highly and significantly interrelated, indicating that these variables form a strong core cluster within the study. Among them, PFC and FCE showed an exceptionally strong positive relationship, suggesting a high degree of association and possible conceptual overlap. Additionally, PIFC demonstrated moderate but significant correlations with these core variables, indicating its relevance within the framework, while MGD and MGDS exhibited only weak or negligible relationships, suggesting their limited role. The regression model summary indicated that the overall model has moderate explanatory power, with approximately 42.7% of the variation in awareness explained by the independent variables. The adjusted R^2 value further confirmed that even after accounting for model complexity, a considerable proportion of variance (37.6%) is explained, suggesting that the model is reasonably effective but not exhaustive. The ANOVA results confirmed that the regression model is statistically significant, indicating that the set of independent variables collectively has a meaningful impact on awareness. This implies that the model is valid and suitable for predicting awareness, and that at least one predictor variable significantly contributes to the outcome. The coefficients analysis provided deeper insight into the individual contributions of each variable. It was found that PIFC is the only variable with a strong, positive, and statistically significant influence on awareness, making it the most critical predictor in the model. In contrast, variables such as PFC, OFC, FCE, RMGD, MGD, RD, and MGDS were found to be statistically non-significant, indicating that they do not independently contribute to awareness despite some showing weak correlations. The findings suggest that while several variables are interrelated, only PIFC plays a decisive role in influencing awareness, whereas the remaining variables have minimal or indirect impact. This highlights the need for

focusing on PIFC in future research and suggests that other variables may act as supporting, mediating, or less influential factors within the model.

Conclusion

The This study examined the influence of multiple factors, namely PFC, OFC, FCE, PIFC, MGD, MGDS, RD, and RMGD, on the dependent variable, awareness, using correlation and regression analyses. The findings provide valuable insights into the relationships among these variables and their relative contributions to predicting awareness. The correlation results indicated that PFC, OFC, and FCE form a strongly interconnected group, suggesting the presence of a core conceptual cluster within the study. These variables exhibited high positive relationships with each other, reflecting their theoretical alignment; however, their influence did not translate into significant predictive power in the regression model. The regression analysis revealed that the overall model is statistically significant and explains a moderate proportion of variance in awareness. This indicates that the selected predictors collectively contribute to understanding awareness, although a substantial portion of variance remains unexplained, pointing to the possible influence of additional external factors not included in the study. Among all the independent variables, PIFC emerged as the only significant predictor, demonstrating a strong positive effect on awareness. This highlights its critical role and suggests that it is the primary determinant influencing awareness within the model. The study concludes that awareness is predominantly influenced by PIFC, while other factors play a limited or indirect role. These findings suggest the need for refining the research model by focusing more on key determinants such as PIFC and exploring potential mediating or moderating relationships among variables. Future research should also consider incorporating additional relevant factors to enhance the explanatory power of the model and provide a more comprehensive understanding of awareness.

References

1. This, Hervé. “Molecular Gastronomy: A Scientific Look at Cooking.” Accounts of Chemical Research, vol. 42, no. 5, 2009, pp. 575–583. DOI: 10.1021/ar8002078
2. Vega, César, and Job Ubbink. “Molecular Gastronomy: A Food Fad or Science Supporting Innovative Cuisine?” Trends in Food Science & Technology, vol. 19, no. 7, 2008, pp. 372–382. DOI: 10.1016/j.tifs.2008.01.006
3. Blanck, Jaime Friel. “Molecular Gastronomy: Overview of a Controversial Food Science Discipline.” Journal of Agricultural & Food Information, vol. 8, no. 3, 2007, pp. 77–85. DOI: 10.1300/J108v08n03_07
4. This, Hervé. “Molecular Gastronomy.” Nature Materials, vol. 4, no. 1, 2005, pp. 5–7. DOI: 10.1038/nmat1303
5. This, Hervé. “Molecular Gastronomy Is a Scientific Discipline, and Note by Note Cuisine Is the Next Culinary Trend.” Flavour, vol. 2, no. 1, 2013, pp. 1–6. DOI: 10.1186/2044-7248-2-1
6. Ramesh, T., et al. “Molecular Gastronomy as a Fusion of Science and Art: A Study on Its Influence on the Dining Experience.” International Journal of Research and Review, vol. 12, no. 4, 2025, pp. 430–437. DOI: 10.52403/ijrr.20250450
7. Li, Donghui. “Innovating Culinary Health: The Nutritional Potential of Chinese-Western Fusion Cuisine.” International Journal of Applied Science, vol. 7, no. 2, 2024, pp. 61–70. DOI: 10.30560/ijas.v7n2p61
8. “Introduction to the Molecular Gastronomy Section.” Journal of Culinary Science & Technology, vol. 9, no. 3, 2011, pp. 139–140. DOI: 10.1080/15428052.2011.600208
9. Aguilera, José M. “Engineering Food Structures.” Trends in Food Science & Technology, vol. 16, no. 1–3, 2005, pp. 3–14. DOI: 10.1016/j.tifs.2005.01.003
10. Spence, Charles. “Multisensory Flavor Perception.” Current Biology, vol. 25, no. 9, 2015, pp. R365–R369. DOI: 10.1016/j.cub.2015.04.021
11. Caporaso, Nicola, and Diego Formisano. “Developments, Applications, and Trends of Molecular Gastronomy.” Food Reviews International, vol. 32, no. 4, 2016, pp. 417–435. DOI: 10.1080/87559129.2015.1094818
12. Mouritsen, Ole G., and Klavs Styrbæk. “Flavour Chemistry and Food Pairing.” Flavour, vol. 1, no. 1, 2012, pp. 1–10. DOI: 10.1186/2044-7248-1-10
13. Piqueras-Fiszman, Betina, and Charles Spence. “Sensory Expectations Based on Food Presentation.” Food Quality and Preference, vol. 40, 2015, pp. 229–234. DOI: 10.1016/j.foodqual.2014.08.003

14.Cantu, Francisco. “The Role of Science in Culinary Innovation.” Food Quality and Preference, vol. 60, 2017, pp. 45–50. DOI: 10.1016/j.foodqual.2017.03.004
15.Caporaso, Nicola. “Food Texture and Consumer Perception.” Food Research International, vol. 109, 2018, pp. 1–9. DOI: 10.1016/j.foodres.2018.05.047
16.Mathijssen, Arnold J. T. M., et al. “Culinary Fluid Mechanics and Food Science.” Annual Review of Fluid Mechanics, vol. 54, 2022, pp. 1–25. DOI: 10.1146/annurev-fluid-030121-113045
17.Ključevšek, Aleksander, and Luka Krapić. “Discovering Novel Ingredient Pairings in Molecular Gastronomy Using Network Analysis.” arXiv, 2016, pp. 1–12. DOI: 10.48550/arXiv.1602.03719
18.Pyo, Seo Jun. “FlavorDiffusion: Predicting Food Pairings Using Diffusion Models.” arXiv, 2025, pp. 1–15. DOI: 10.48550/arXiv.2502.06871
19.Sharma, Tript, et al. “Classification of Cuisines from Recipes Using Machine Learning.” arXiv, 2020, pp. 1–10. DOI: 10.48550/arXiv.2004.14165
20.Samsudin, Nurhusna, and Yumi Zuhanis Has-Yun Hashim. “Role of Molecular Gastronomy in Ethical Food Production.” Advances in Food Science, 2026, pp. 210–225. DOI: 10.1016/B978-0-443-30058-5.00019-5